DiViCro

Management Software for network-based video systems
System specification
As at 10/2009

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1. Introduction

DiViCro is a management software for network-based video systems.
The use of network-based video systems sets the operator the task of replacing or upgrading the classic video monitoring processes with their crossbars, monitors and recording systems. Virtually every video system for network use provides a web browser-based user interface, although its usefulness is limited for security applications. Operating and display problems occur, especially when using different video systems simultaneously. Also, systems are often used that only possess simple functionalities and do not offer recording or Motion Detection.

2. System structure

Structured like a video crossbar, in its basic configuration, DiViCro incorporates 64 inputs and 25 outputs. An IP-based video source can be individually assigned to each input, and its definition, quality and frame frequency can be calibrated. A number of matching interfaces is available for this purpose, for the most varied types and different manufacturers. Functionalities like swivel head control (PTZ) and digital inputs and outputs are also supported, depending on the product. Each input is equipped with its own Motion Detection, capable of carrying out a series of successive events such as recording or switching. A high capacity crash resistant picture memory is provided for each channel for recording the video signals, which also offers individual storage on freely adjustable hard disks or data servers.

The 25 outputs are organised as camera windows with unrestricted position adjustment, free to receive video signals driven by the operator or by events. Switching is controlled manually by selecting a camera from the camera list or using an optional graphic desktop. Automatic switching can result from different events such as received contacts, Motion Detection or even through an external system using the optional OPC interface.

Events are saved in a reports list located internally or on external database servers. Each report is linked to a secure video sequence and can be replayed directly by selection.
An optional enhancement based on the PVis control system can be supplied for showing position plans and as an automation interface. AutoCAD® DWG and DXF, together with picture import filters and symbol libraries can be used to set up a function- and user-friendly interface in line with the standard for management systems. The automation interface can be used to integrate external systems such as danger warning systems, contacts and buildings control systems into the video management system.

An optional interface based on the OPC Data Access 2 Standard can be supplied to enable integration into security and building management systems. This interface allows the entire functionality of the system to be controlled through an external system using an OPC Data Access 2 Client Interface.

DiViCro can be expanded as a client/server-based solution for use in large surveillance

systems. Up to 64 video servers can be used to configure networks with up to 4096 video sources and 1600 outputs. In doing so, the network load is divided among the servers. The server version also provides a WEB interface, enabling access to platform-independent WEB browsers. The browser function can be driven on virtually any commercial operating system such as Windows, Linux, Unix or Apple.

2.1 System specification/System requirements

The quality and picture speed of the video signals is the most important factor for system performance. Another parameter is the computer hardware and the processing required of the video sources (Motion Detection, recording). A standard PC (2 GHz, 512 MByte RAM) with a resolution of 640x480 pixels and good picture quality (70%) is capable of processing and supplying up to 120 frames per second, divided among the video sources. The network, the video card and the hard disk for recording are also very important for speed. The output of 120 frames per second can be improved by using faster computer components.

Minimum system specification:

- Windows 2000, Windows XP
- Minimum 2 GHz, 256 MB RAM
- (Hard disk capacity depends on the requirements)
- A good graphics card is recommended.

Optimum system specification for high performance systems

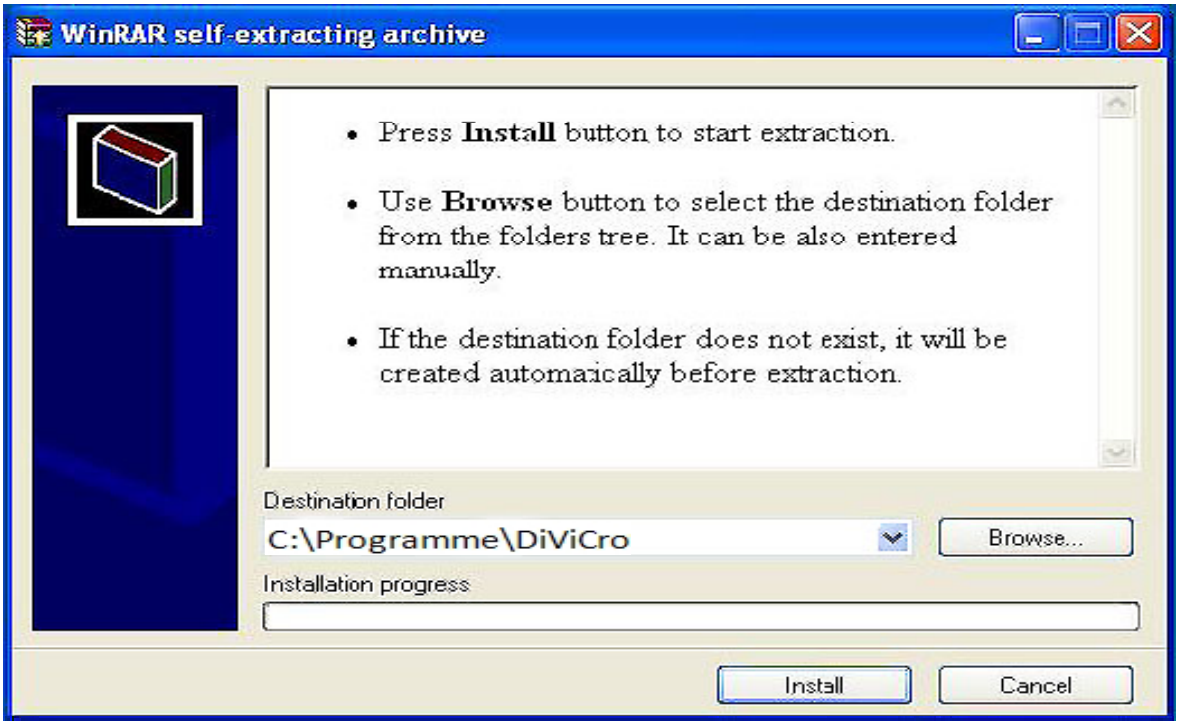
- Windows XP
- Dual Core Processor (2 GHz), 2 GB RAM
- (Hard disk capacity depends on the requirements)
- High performance graphics card

2.2 Access to the operating system

The operating system and the DiViCro-Software must be protected by setting up suitable authorised access for each user in the operating system's user management system. It is especially important to protect the configuration file in the DiViCro-Software.

3. Installation

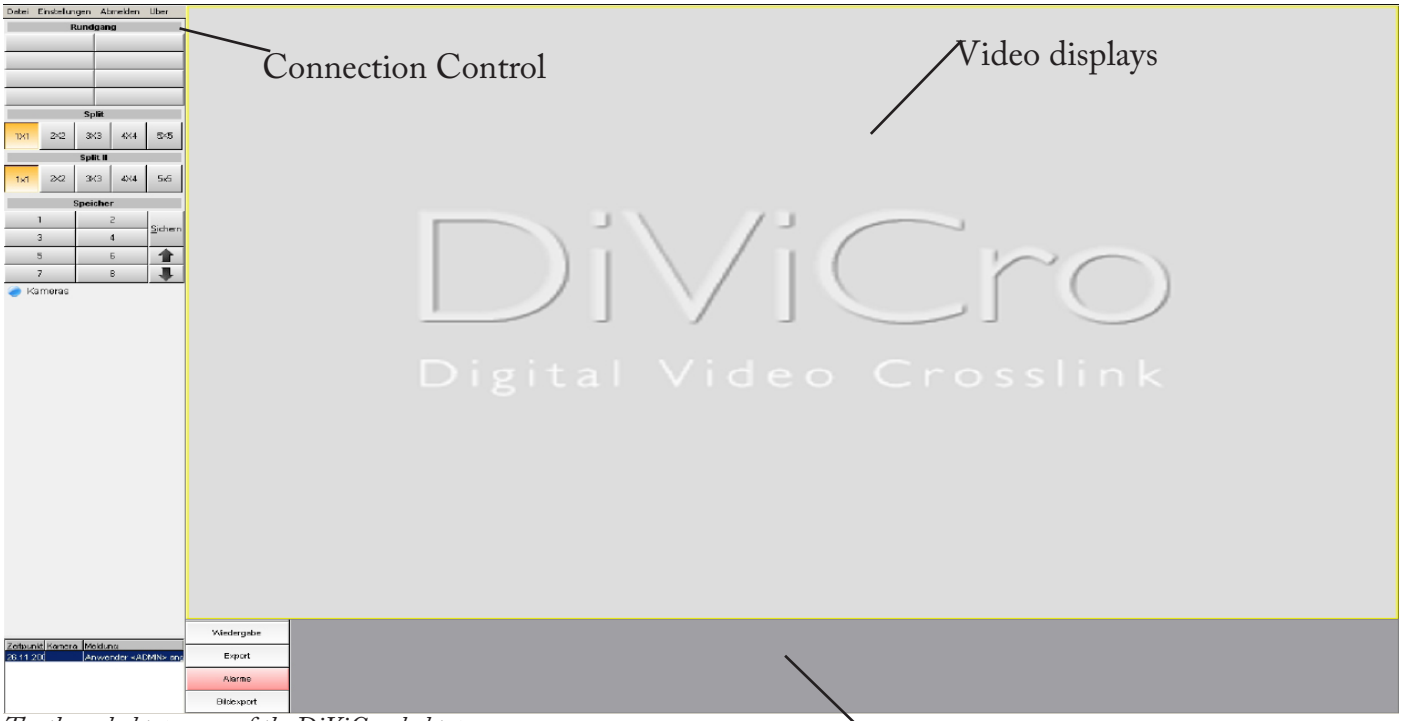
Insert the DiViCro CD in the CD-ROM drive and call up the self-extracting installation archive.


WinRAR self-extracting archive
Press Install button to start extraction.
Use Browse button to select the destination folder from the folders tree. It can be also entered manually.
If the destination folder does not exist, it will be created automatically before extraction.
Destination folder
C:\Programme\DiViCro
Browse...
Installation progress
Install
Cancel

In this window, select the desired folder for the DiViCro Programme files in Destination folder. Click on Install to extract the required data from the selected list and select DiViCro.exe to start the programme.

4. DiViCro Desktop/Functions

The DiViCro desktop is divided into the following three desktop areas, in addition to the menu and status bars:



The three desktop areas of the DiViCro desktop

4.1 Menu bar

The menu bar contains the following elements: File, Settings, Cancel and Details.
The system can only be rebooted or shut down with File. Settings is used to define the complete configuration for camera, server, userdefined desktop settings, authorised access and users/group passwords etc. The Cancel tab on the menu bar allows the user to quit the programme without closing it. Details is used to show information
about the version number.

4.2 Connection control

The configurations for the Show videos area are selected in the Connection control desktop area containing Main menu, Camera circuit, Split, Memory, Camera directory and Report. The number of connected local cameras and the actual number of pictures received per second are displayed on the status bar at the bottom.

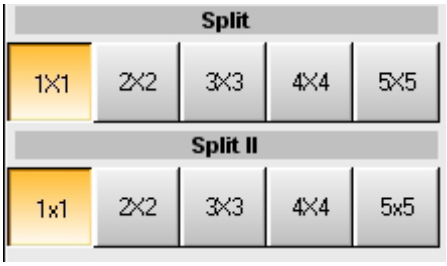
4.2.1 Camera circuit

The saved number of selected cameras is displayed here(see Section 6.11). Choose Select to start them.

Camera circuit area

4.2.2 The Split area

The number of camera windows to be displayed in the Show videos area is selected in the Split area. The maximum number of camera windows that can be displayed is 25.



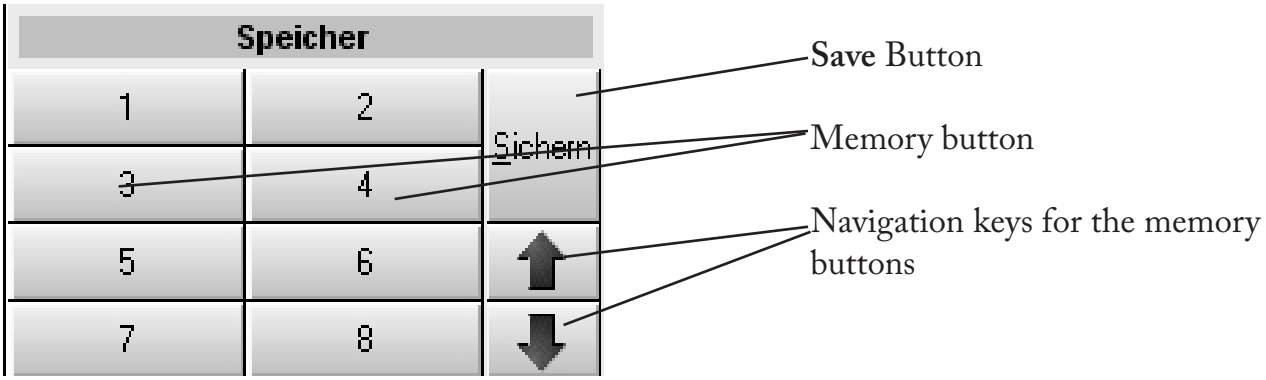
Split area

Show videos area with the 5x5 Split option

4.2.3 The Memory area

Here, in addition to preset camera combinations, it is possible to save, name and call up personalised camera combinations. 80 memory spaces are available.

Memory area



Procedure: After defining the Show videos area (which includes selecting the number of video displays, positioning and organising the different windows and assigning the video sources), the settings are saved by clicking the Save button. Then left-click on the required memory space.
If desired, the entry can be made with the right mouse button, and confirmed with Enter. This way, the selected camera combination for the Show videos area is saved at the checked button, and can be called up at any time.

4.2.4 Camera directory

Every connected camera is displayed in the Camera directory. Colour codes mark the status of each camera. Local and remote cameras are identified by different symbols in the list.

Camera directory

Motion Detection, Alarm/(picture failure)

Live Switching active

Recording activated/enabled

Camera not switched on

Camera out of service

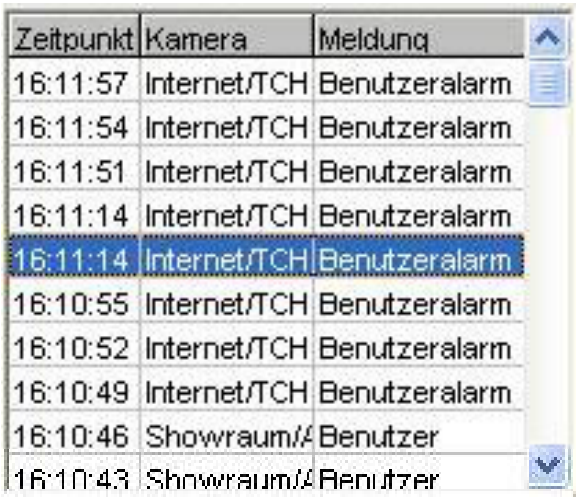
local camera

remote camera

To display Live Switching in a camera window, select the desired camera in the camera directory ad use drag&drop to move it to the required window in the Show videos area.

4.2.5 The Report area

Alarm warnings are displayed here, triggered either by Motion Detection or directly by a user. The time of the recording, the camera identification and the report type are recorded in the Report area.

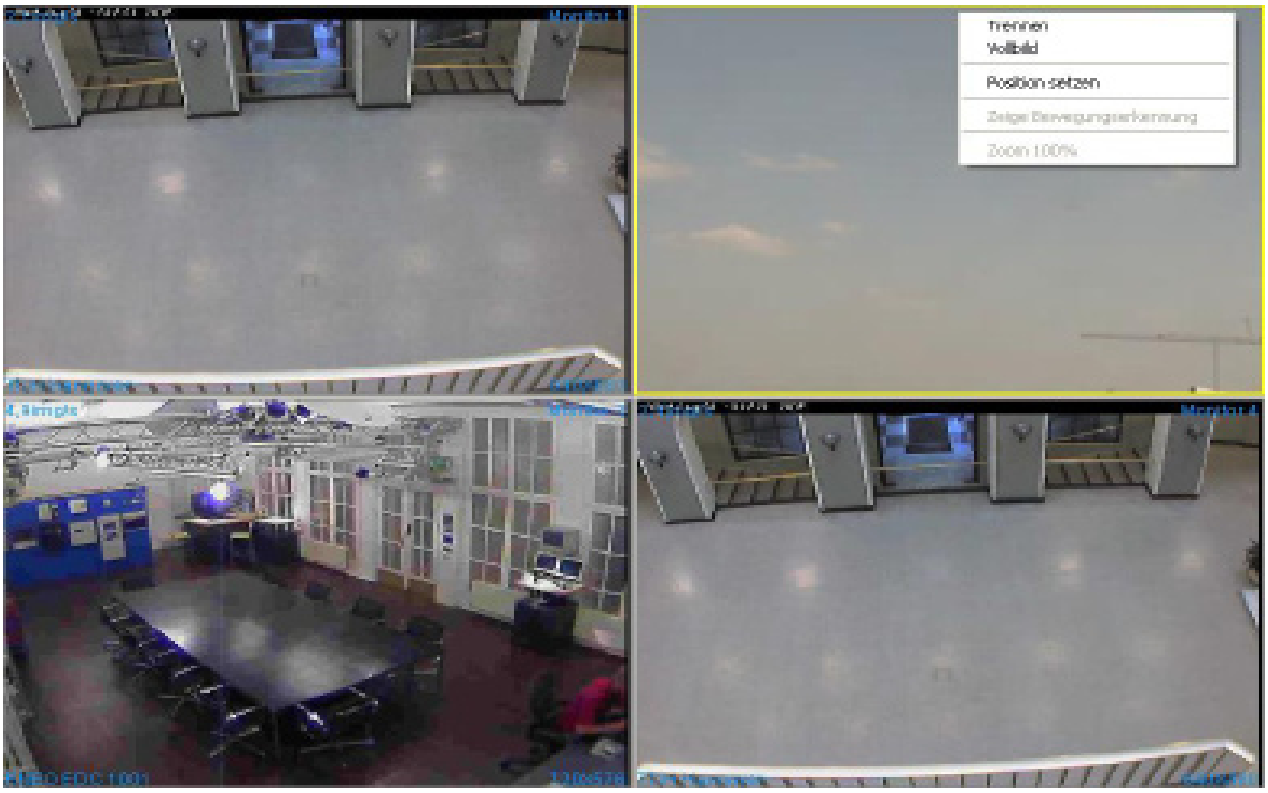


Zeitpunkt	Kamera	Meldung
16:11:57	Internet/TCH	Benutzeralarm
16:11:54	Internet/TCH	Benutzeralarm
16:11:51	Internet/TCH	Benutzeralarm
16:11:14	Internet/TCH	Benutzeralarm
16:11:14	Internet/TCH	Benutzeralarm
16:10:55	Internet/TCH	Benutzeralarm
16:10:52	Internet/TCH	Benutzeralarm
16:10:49	Internet/TCH	Benutzeralarm
16:10:46	Showraum/A	Benutzer
16:10:43	Showraum/A	Benutzer

The required alarm recorded in the Report area is played back by double-clicking on the relevant recording, which is then pasted in the camera window in the Show videos area. It can then be controlled in the function control playback mode.

4.3 Video displays

This area is used to display and play back Live Switching and Alarm reports.



Right-click in any display window to call up the associated Context menu, which offers the following functions:

Disconnect	The camera is disconnected, i.e. Live Switching and playback are ended.
Full picture:	The selected camera window is displayed in 1x1 mode. When deactivated, the camera window returns to its original size.
Set position:	The selected camera window can be set to any scale and position.
Show Motion Detection:	This function can only be used if Motion Detection is enabled(see Section 6.5.9). When the function is enabled, each recording appears in grey scale, with movements marked in red.
100% Zoom:	If an area was magnified in a camera window, the 100% Zoom function in the Context menu resets the picture to the original resolution.

4.4 Function control

Function control determines the current programme mode. It also provides general control of the playback mode in the Show videos area.
It is possible to switch between the following functions (modes):

- *Live*
- *Playback*
- *Export*
- *Alarm*
- *Export picture*

It is possible to display or play back the entire recording (using the Alarm button), or to use the Export button to export and save only extracts (export in AVI format), or single still pictures (export in BMP format). During Live Switching, a PTZ control can be used to control the cameras from the workstation concerned.
The five function buttons illustrated above are used to switch to each mode.

4.4.1 Live Mode

Depending on the camera type, Live Mode can be used through an enhanced function to remotely control the cameras.
PTZ Control:
Cameras are remotely controlled with PTZ Control. This is provided that PTZ Control is enabled (see Sections 6.5.8 and 6.12), and the camera is fitted with a swivel function. This enables Zoom, Focus and Iris, and also the preferred camera position, to be set, saved and called up.

Navigation keys

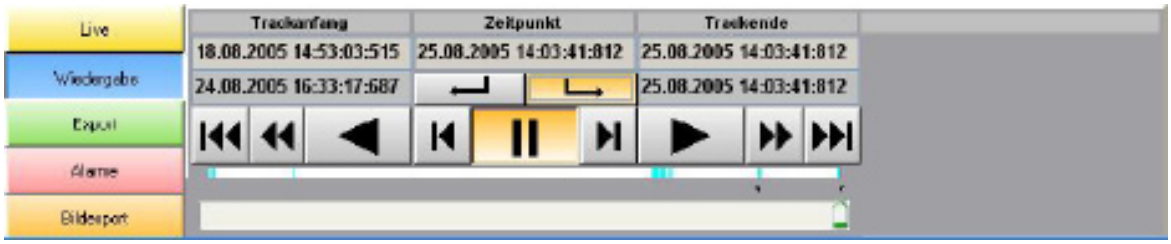
Starting Point

Dropdown POSITION Menu and saved positions

A fixed camera position is defined by steering the camera to the required position using the navigation keys. To save the camera position, select a free memory space in the dropdown menu and click on the SAVE button to confirm.
To change the name of the saved position, select the required memory space in the POSITION dropdown menu and [Enter] to confirm. A new name is given, and is saved with the SAVE button.
The saved camera position can now be called up at any time by clicking the CALL-UP button.

4.4.2 Playback Mode

Playback Mode is only active if recording has been enabled for the camera concerned (see Section 6.5.2).
Playback in this mode is controlled by recorded Alarm reports or other surveillance recordings. It is possible to export recording time intervals.

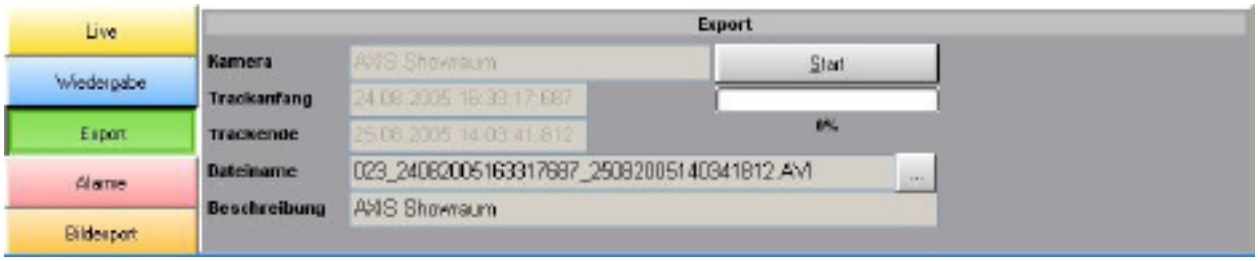


Track start:	Start of recording
Time:	Definition of a time interval to be exported or simply viewed
Track end:	End of recording
	Set track start
	Set track end

To export an extract of a complete recording, use the navigation keys to set the start and end of the extract. Only when both points have been set can Export mode be activated and accessed by clicking on the Export button.

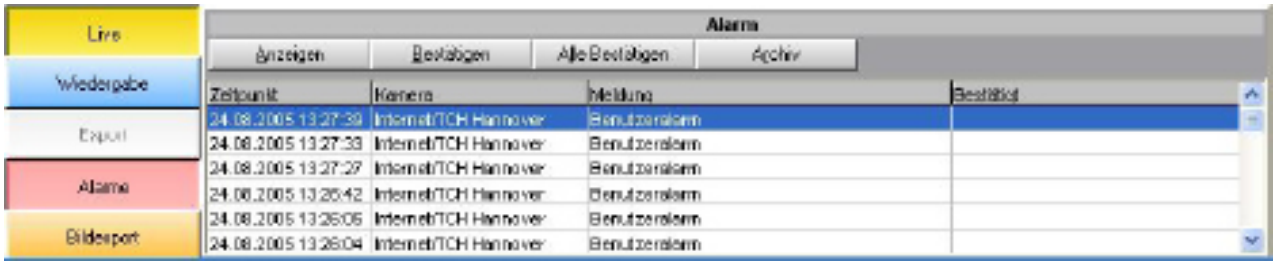
4.4.3 Export Mode

This mode is used to export recordings by means of a defined time interval initiated with the Start button.



4.4.4 Alarm Mode

Any as yet unconfirmed reports (active alarms) are listed in Alarm Mode. They can be confirmed singly or all together. It is also possible to use the Archive button to obtain a list of all previously confirmed alarms (internal database). The View button can be used to view individual alarm reports in the Show videos area.



4.4.5 Picture export

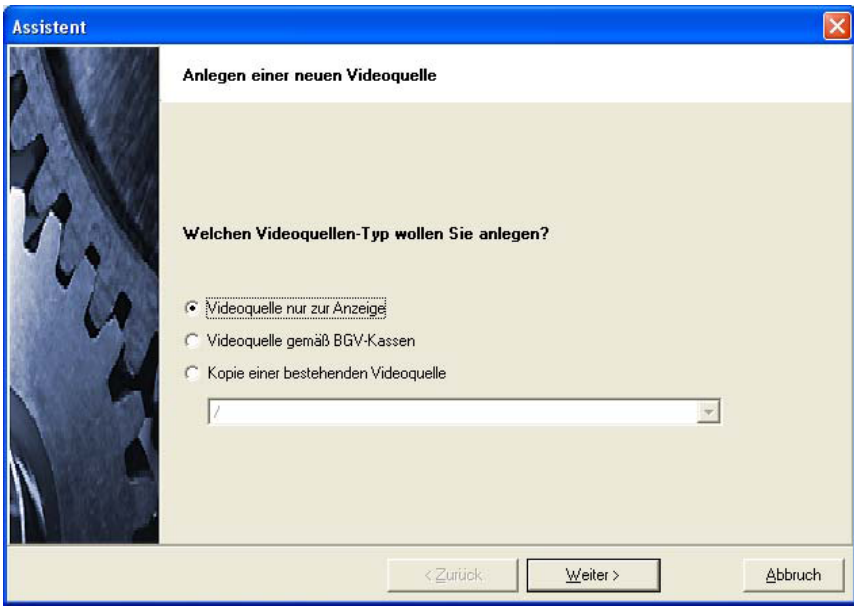
The Picture export function is used to export the latest single pictures in BMP or JPEG format directly into the directory provided in Export (see Section 6.4).

5 First steps

This Section describes how to use the Wizard to install a video source and then to display it in a camera window.

5.1 Installing a video source

Open the Assistant at menu item Settings > New video source. The "Assistant" window opens at the first installation step:



Video source for display only

- The video source is produced without recording or Motion Detection. The link is only obtained in the event of a display.

Video source in accordance with BGV-Kassen (German Health and Safety Regulation for Cash points)

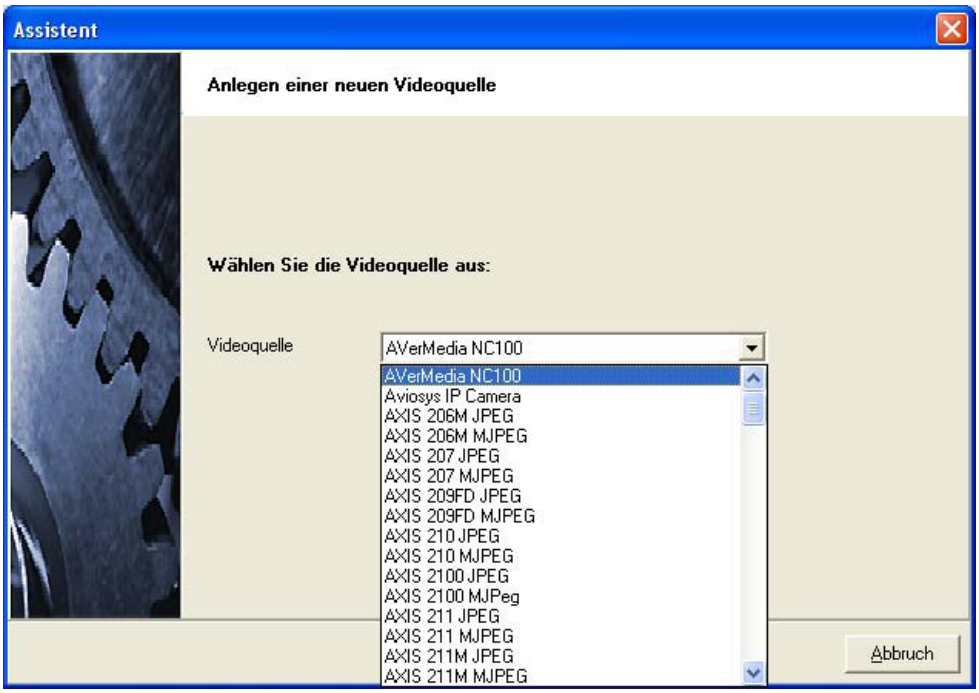
- Permanent link
- Motion Detection every 4th picture
- Recording with 15 minutes before and after an alarm
- Recording in the event of motion on the standard track
- Suspicion and Alarm recording
- Deletion of standard tracks at < 1 GByte and those more than 3 days old
- Deletion of Suspicion and Alarm tracks more than 10 days old
- "Picture failure" report in the event of failure of the video source

Copy an existing video source

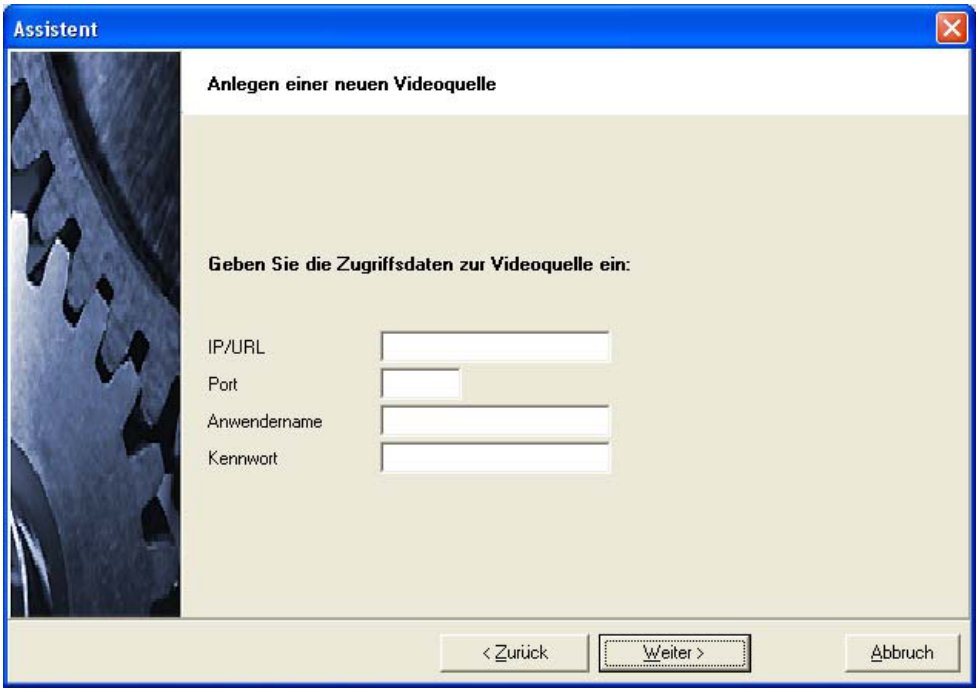
Adopts the settings of a previously installed camera

After making your choice, click on the Continue button. The name, path and description of the camera to be added are defined in the second step:

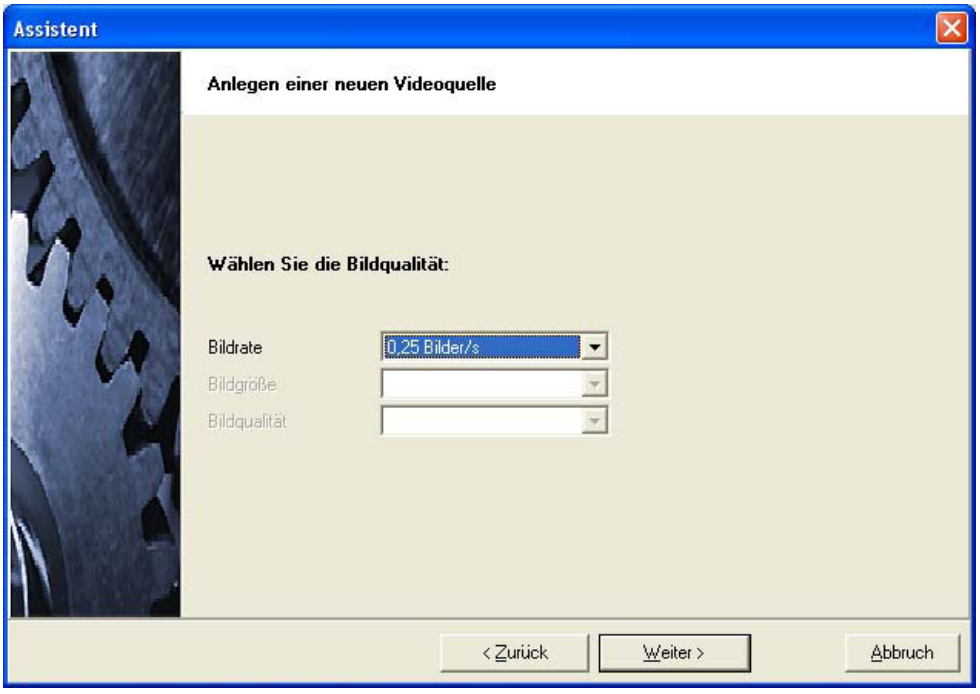
Click on the Continue button to go to Step 3 - to select the manufacturer and type of the camera to be added. Select the desired camera from the specified camera list and go to Step 4.



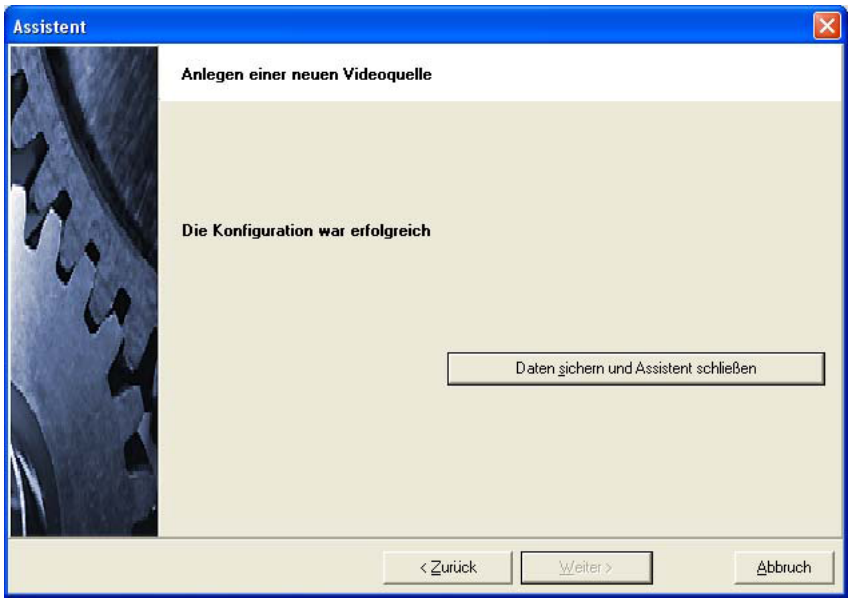
The essential camera configuration data are requested in the next step to enable a link with the camera:



Picture quality settings are defined in the next window. The required definitions are: number of frames per second, picture size in pixels and picture quality.



By checking the Save data ... buttons, you can confirm all entries made until now, save the data and end the Wizard. Click on the Back button to change the settings if required.



The new video source is installed and immediately appears in the camera directory:

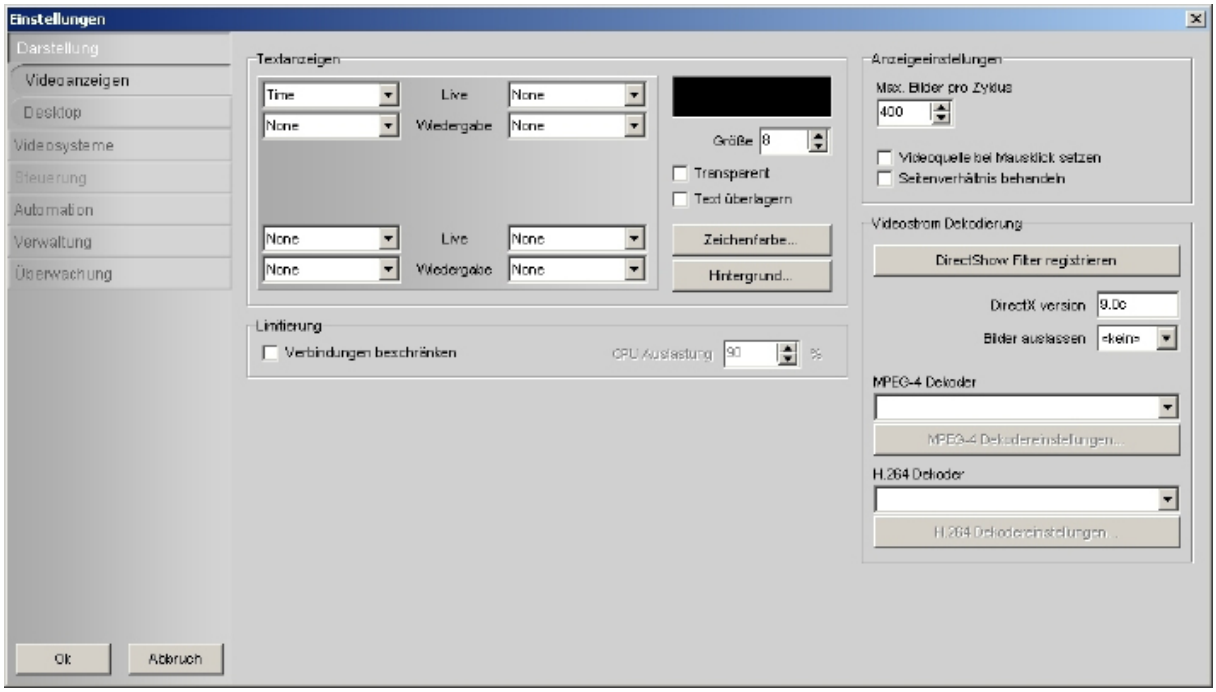
To obtain a live picture of the new camera, navigate down the Camera directory (see Section 4.2.4) to the camera and drag it with the mouse to a Show videos area (see Section 4.3). Release the mouse button to create the link with the camera and to view the camera picture in the selected window. Cameras can be easily and conveniently installed by installing video sources with the installation Assistant. Each video source can subsequently be selected and processed at menu item Settings > Configuration > Video sources (see Section 6.5). The video source configuration enables both a detailed optimisation of camera settings (picture speed, picture quality etc.), and an enhancement of the video sources with additional functionalities (such as Motion Detection, recording etc.).

6 System configuration

In spite of the easy installation of video sources and their intuitive operation, the DiViCro-System is an extremely comprehensive and at the same time, flexible software. The system is fully configured and subsequently optimised in the configuration area, accessed through menu item Settings> Configuration.
The following tabs are located in the configuration window:

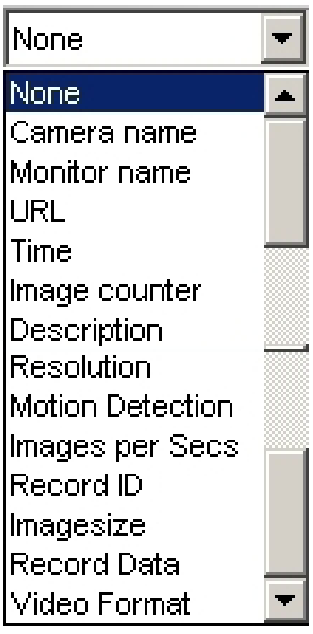
- *Video displays* — OSD (On-Screen-Displays) configuration
- *Desktop* — Desktop settings
- *Alarm monitoring* — Configures alarm processes
- *Export* — Specifies directories and further options
- *Video sources* — Summarises and configures options for video sources
- *User groups* — Defines user groups
- *Users* — Lists installed cameras
- *Video server* — Installation of further server functions
- *Camera list* — Installation of a video server
- *Server* — Assigns users to the groups
- *Camera circuit* — Sets up video selections
- *External PTZ control* — Installs PTZ control
- *OPC DA Client* — Installs an OPC Server
- *Automation* — Writes scripts
- *Decoder* — Installation of an external decoder
- *Inputs/outputs* — Configuration of a Suspicion/Alarm input and an error output
- *Sabotage monitoring* — Changes recording settings

6.1 Video displays



The camera windows of the Show videos area are configured in this Record card, i.e. all the information must be set before it can be displayed.
In the Show text box, information is displayed in the single camera window, enabled as a userdefined setting with 4 positions using a dropdown menu, e.g. with time information top left, camera name top right, frames per second bottom left. Different settings are possible, according to whether the user is in live or playback mode. The dropdown menus provide the following setting options:

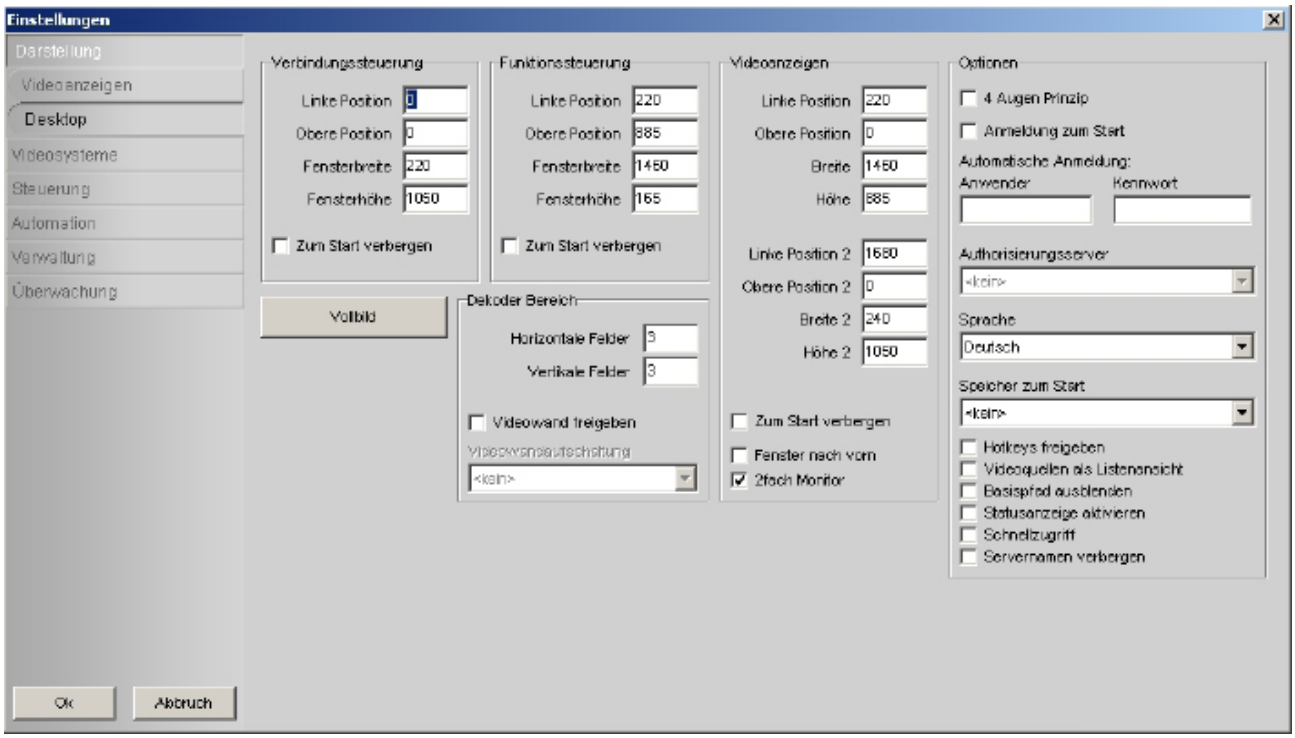
None:	No display at this position of the Show videos area
Camera name:	Camera manufacturer's name
Monitor name:	Monitor1-Monitor25
URL:	Connection path to the camera
Time:	Time of recording display
Picture Counter	Picture counter, identification no. of all received pictures
Description:	User-defined camera description
Resolution:	Picture resolution in pixels, horizontal/ vertical
Motion Detection:	Motion Detection with red marking
Pictures per sec:	Picture playback in seconds
Record ID:	External values (identity) that can be saved for a record.
Picture Size:	Picture size in bytes
Record Data:	External values (data) that can be saved for a record.



Text font, size, background colour (including transparent) are also set here for the text boxes in the information display.
The recommended default for the pictures per cycle setting is 100 (min. 10 and max. 1000). This value represents the maximum number of frames per second in all connected video displays.

6.2 Desktop

The user-defined appearance of the user window, i.e. the DiViCro desktop is set here.
The top left part of the screen is intended to be the zero position (start point) for the “left position” and “top position” settings in the boxes in each of the 3 desktop areas. The input values are pixel data.



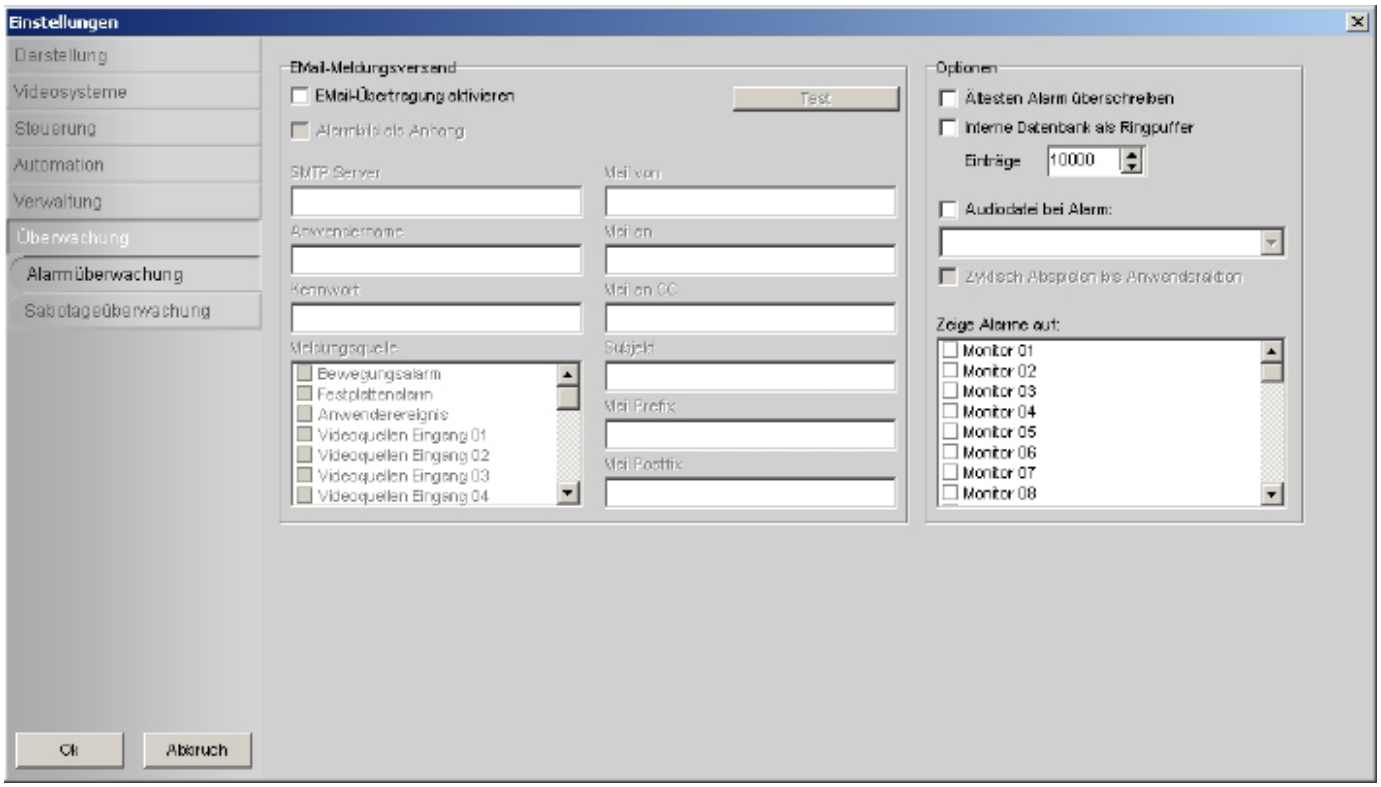
The 3 desktop areas Connection control, Function control and Show videos (see Section 4) can be hidden at programme start. Other possible settings are:

Window to front:	Displays the Show videos area in the foreground
Dual Monitor:	Activates the display on a second monitor
Start-up logon:	Logon exclusively with a user password; the logon/logoff window opens at the next programme start

Authorisation server	Uses the user administrator of a video server
Language:	Choice between English, German, French, Italian, Spanish, Português, Czech and Polish
Memory at Start:	Show videos default setting at programme start
Enable hotkeys:	Activates the use of hotkeys
Video sources in List view	Changes between Tree and List view for video sources in Connection control
Activate Status display	Displays the input/output status in Connection control
Full picture:	Automatic adjustment of the DiViCro- application window on the current screen

6.3 Alarm monitoring

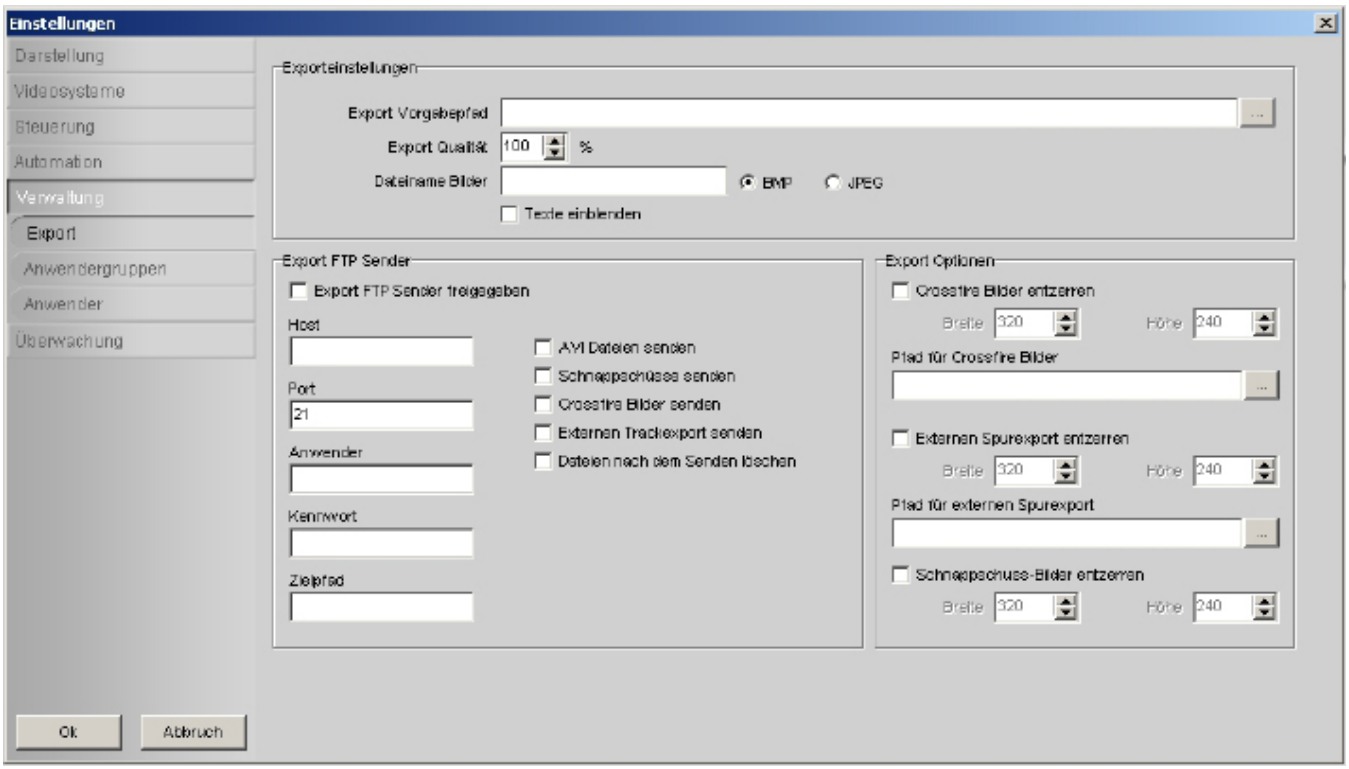
You can use this Record card to activate/configure report sending by e-mail and to assign the Alarm display to a specific camera window



Overwrite oldest alarm:	New alarms overwrite the alarm picture already displayed on the selected monitors
Internal database as a ring buffer:	Writes the set number of entries to the database, and overwrites them from the start when the maximum number is reached
Alarm audio file:	Plays back the audio file in cycles (provided the pointer is set) when an alarm is triggered
Show alarm on:	A specific camera window is assigned for showing alarms

6.4 Export

A file is named at Export > Default path for placing picture material on the hard disk. Files in AVI format, or optionally BMP or JPEG format, are exported to this file. The quality of the exported picture material is expressed as a percentage (%). Single pictures (snapshots) can be taken by operating the picture export button in Function control while a video source is switching. A picture is saved for every click on the button (see Section 8.1.2).

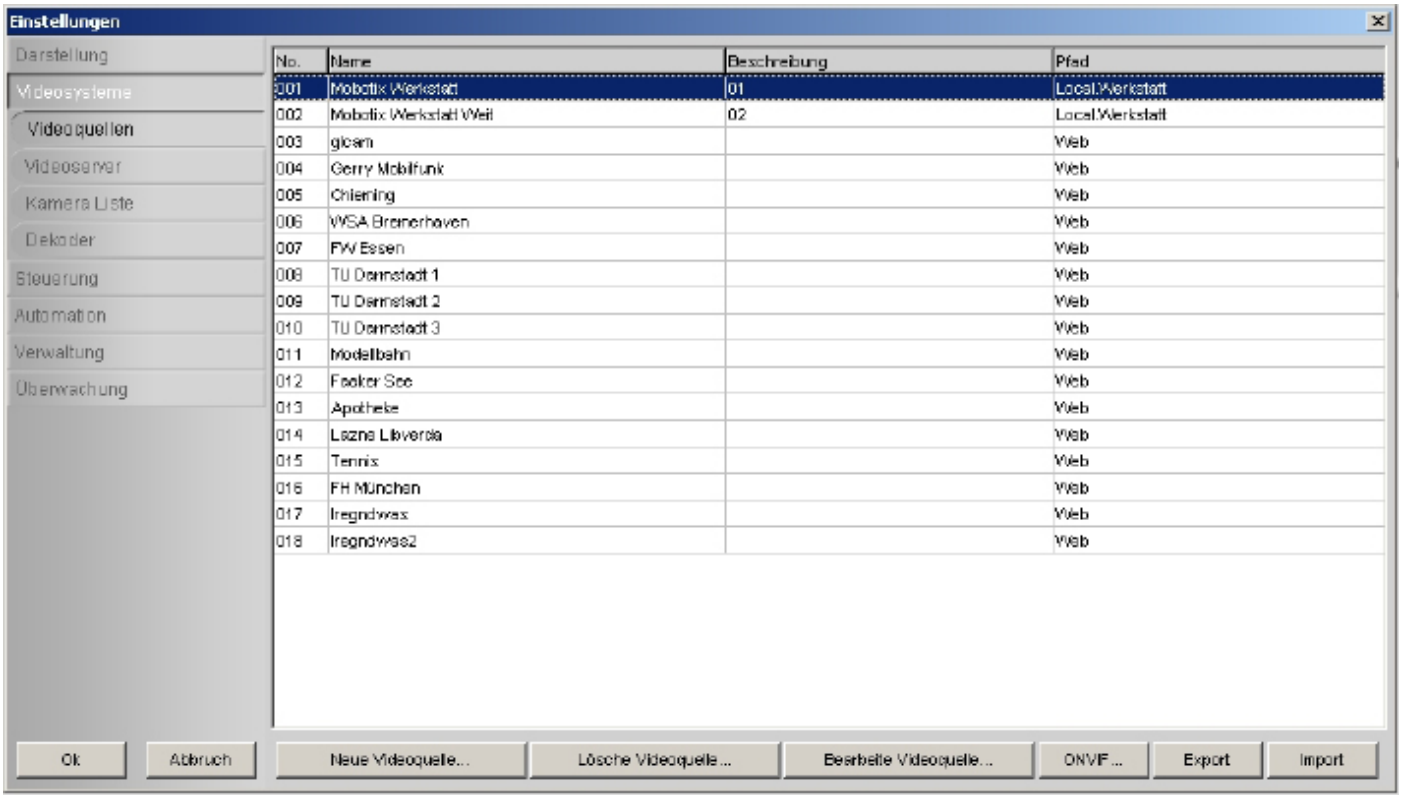


Export default path	Sets the path on which exported data are to be saved
Export quality	The output quality can be reduced here
Picture file name	Sets the export file name and type
Export FTP sender enabled	Exports files to a (remote) FTP server using FTP-Protocol

☞ When a file name is selected at *Picture file name*, any previously existing files are overwritten at each export operation. If no file name is entered, an internal file with a name including the date and time of the export is allocated at each export operation.

6.5 Video sources

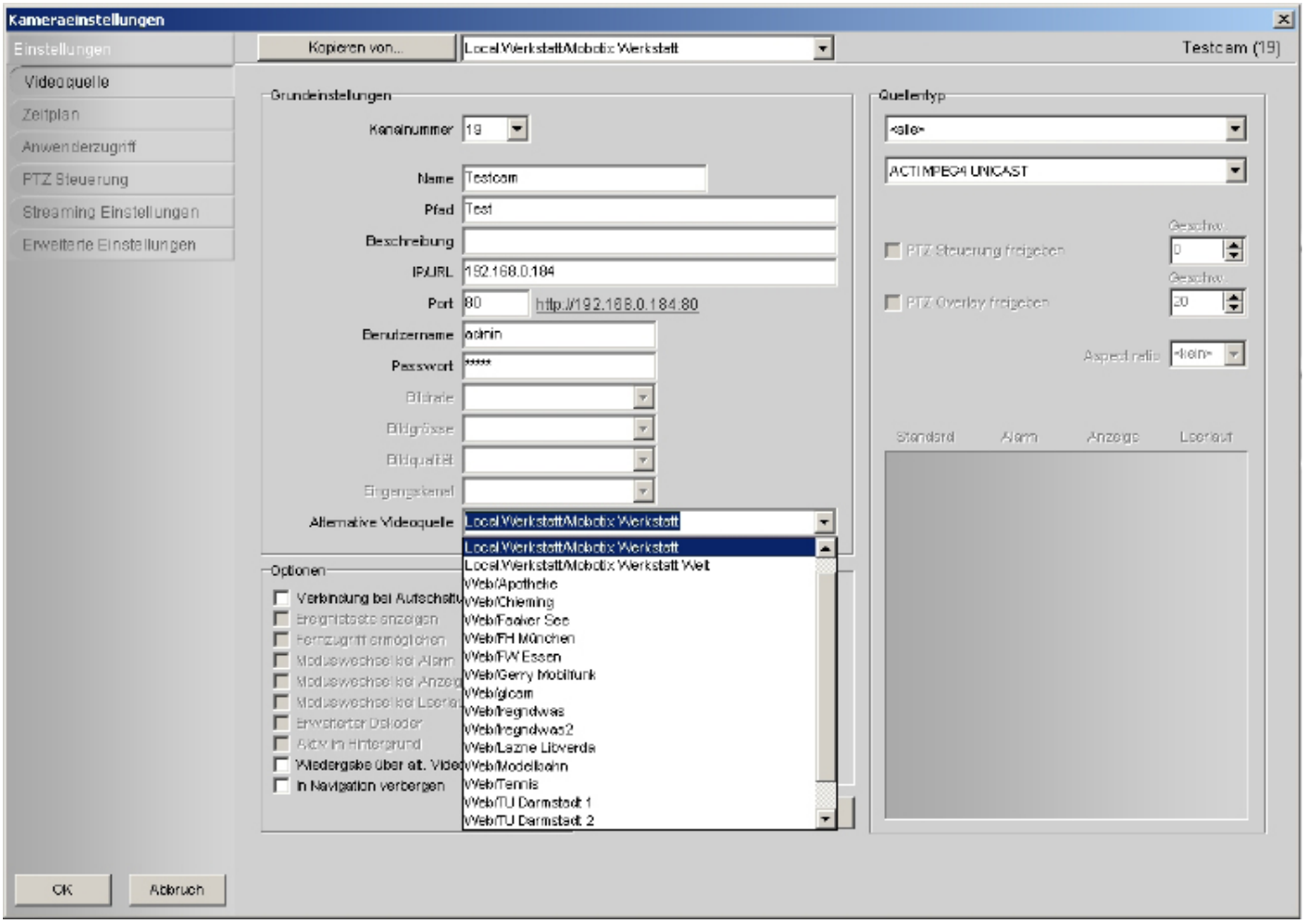
The currently connected cameras are listed in the Video sources Record card with the identification number, name and description. Cameras can be immediately removed from this list by clicking the Delete video source button. The New video source and Edit video source are used to open the Camera settings sub-menu, where new cameras can be added or details of existing cameras can be edited.



6.5.1 Video source

The Camera settings sub-menu accessed through the New video source button contains 10 Record cards: Video source, Record, Reports, Time plan, Memory, I/O control, User logon, PTZ control, Motion Detection and Sabotage Detection. All camera data and settings are stored here. The settings of existing cameras can be copied using the Copy from ... button.

- *Video source* — Adds and configures a new video source
- *Record* — Enables recording
- *Reports* — Sets up Alarm reports
- *Time plan* — Installs a time plan
- *Memory* — Edits maximum file size and deletes settings
- *I/O control* — Sets and reads external contacts
- *User logon* — Defines user authorisations
- *PTZ control* — Installs PTZ control
- *Motion Detection* — Enables and configures Motion Detection
- *Sabotage Detection* — Enables and configures Sabotage Detection

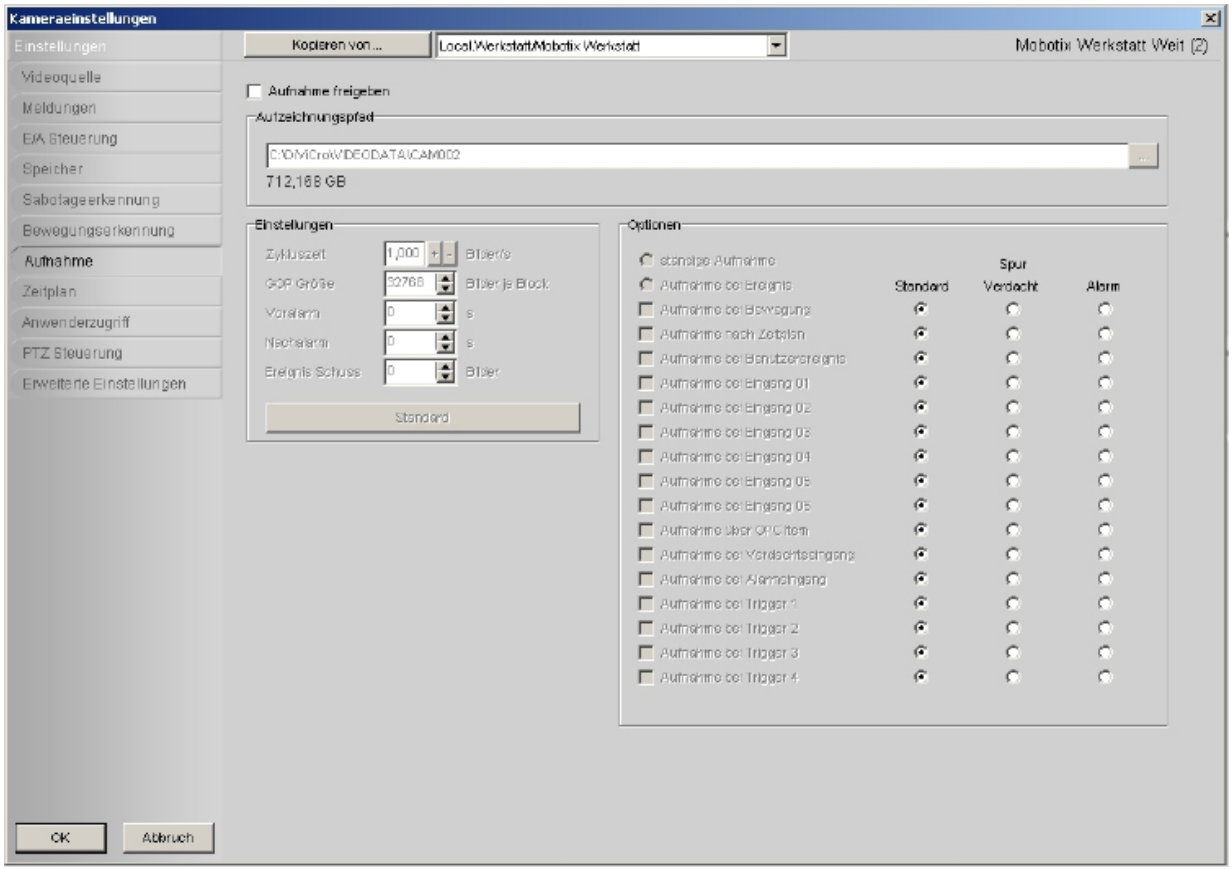


Name:	Video source name
Path:	Path name in the camera register camera list
Description:	other camera data e.g. camera manufacturer
IP/URL:	IP address or URL of the selected camera
Port:	associated port (Standardport 80)
User name:	User name for the selected camera
Password:	Password for the selected camera
Picture speed:	Frames per second
Picture size:	Picture size in pixels
Input channel:	Active on Video server
Alternative Video source:	Selected on the desktop
Connection when tracking:	Camera connection is set up using drag&drop to move the camera from the camera register to the camera window.
Show event button:	Installs the user button in the current camera window to trigger a manual alarm and subsequent action by the user
Enable remote access:	Prepares the camera for clients (in Server systems)

Mode change with alarm:	Selects alternative camera settings in alarm mode
Mode change with display:	Selects alternative camera settings in display mode
Mode change with no recording:	Selects alternative camera settings in no recording mode (No recording mode must be active in the Time plan tab)
Upgraded decoder	Provided it is supported by the camera, the upgraded decoder offers a significantly faster display of JPEG pictures
Playback via alternative video sources:	The alternative source is played back in Playback mode It is therefore possible, for example, to obtain a Live display based on an ActiveX and a MJPEG recording from a source. Provided that an alternative video source has been defined, a checkbox marked "ALT" appears at the bottom. To achieve this, the status bar display must be shown in the Desktop configuration.
Test:	Camera connection test; correct connection data with picture display in the check window above
Source type:	Camera type and data format selection (JPEG, MJPEG, MPEG etc.)

6.5.2 Record

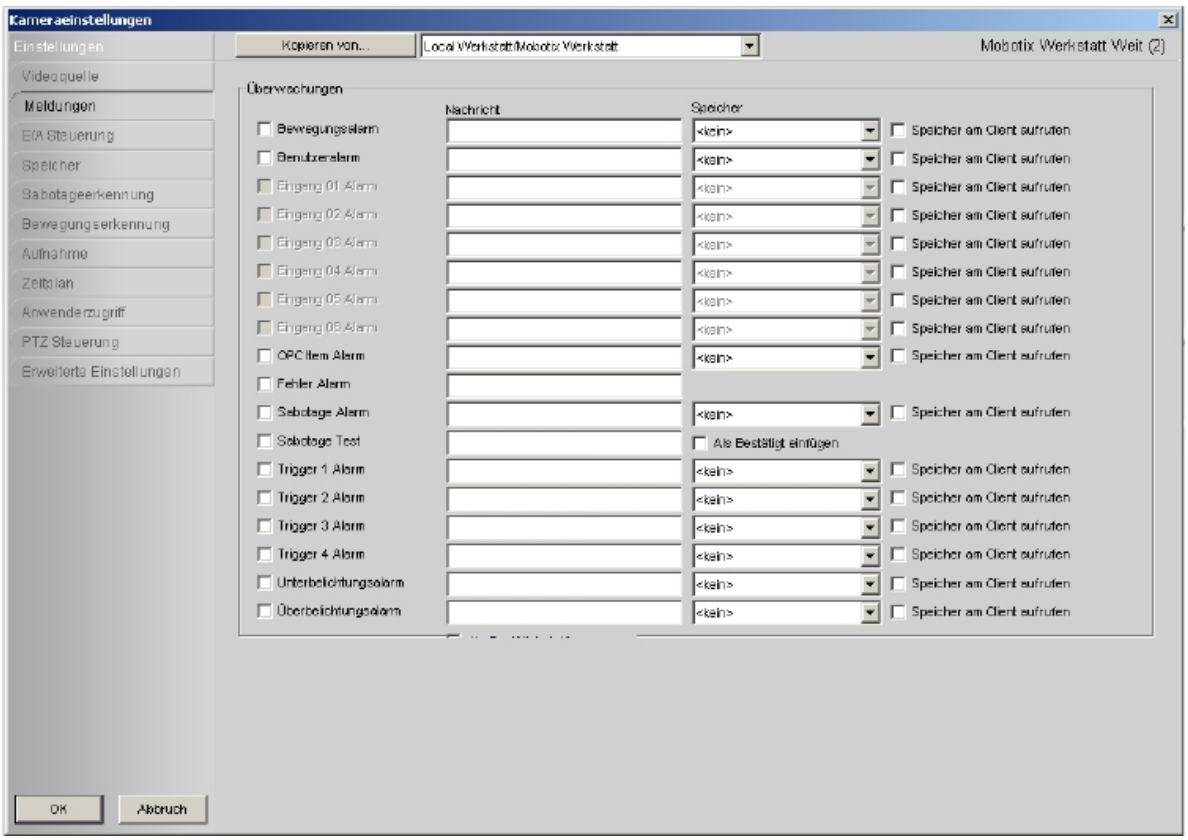
The Record Record card is used to activate different recording processes. Once Record is enabled, it is possible to choose between continuous or event-driven recording.
Target path is used to define a path in which the recordings made by this camera are stored. It is then possible to choose between continuous or event-driven recording. There are different event options, for example Motion alarm (see Section 6.5.9) or recording according to a Time plan (see Section 6.5.4). A track is assigned for each event. Special deletion rules apply to the Suspicion and Alarm tracks (see Section 6.5.5).



Enable recording:	Activation is needed to start recording
Target path:	Recording memory location on the hard disk
Cycle time:	Recording cycle in ms Note: In compliance with the BGV (German Health and Safety Regulation), ensure that the cycle time is set to 2.5 frames/second (400ms)
GOP values:	Frames per block (Group of Pictures): The value entered here gives the maximum size of the file to be recorded. Once this value is reached, a new file is automatically created.
Pre-alarm:	Start of recording time (in seconds) before an alarm
Post-alarm:	End of recording time (in seconds) after an alarm. Note: In compliance with the BGV, ensure that the pre- and post-alarm times are each set to 900s (15 min.)
Snapshot event:	Records the specified number of frames for a snapshot
Continuous recording:	Uninterrupted recording
Track:	Selects the track to be used for the current event.
Standard:	Recording takes place on the Standard track
Suspicion:	Recording takes place on the Suspicion track. Special deletion rules apply to this track -> see Memory
Alarm:	Recording takes place on the Alarm track. Special deletion rules apply to this track -> see Memory
Event-driven recording:	Recording only in case of an event, i.e. when at least one of the three following event options are activated: motion, time plan or user action
Recording in the event of motion:	Recording in the event of motion in the pre-designated area
Recording according to a time plan:	Recording in the pre-designated timeframe
Recording in the event of a user action:	Recording when the user operates the event key, only for as long as the key is held in.
Recording in the event of a trigger	Recording when a specific signal is triggered
Recording via an OPC Item	Recording when a specific data item is triggered
Recording in the event of an activated suspicion trigger	Recording in the event of an activated suspicion trigger.
Recording in the event of an alarm trigger	Recording in the event of an activated alarm trigger

6.5.3 Reports

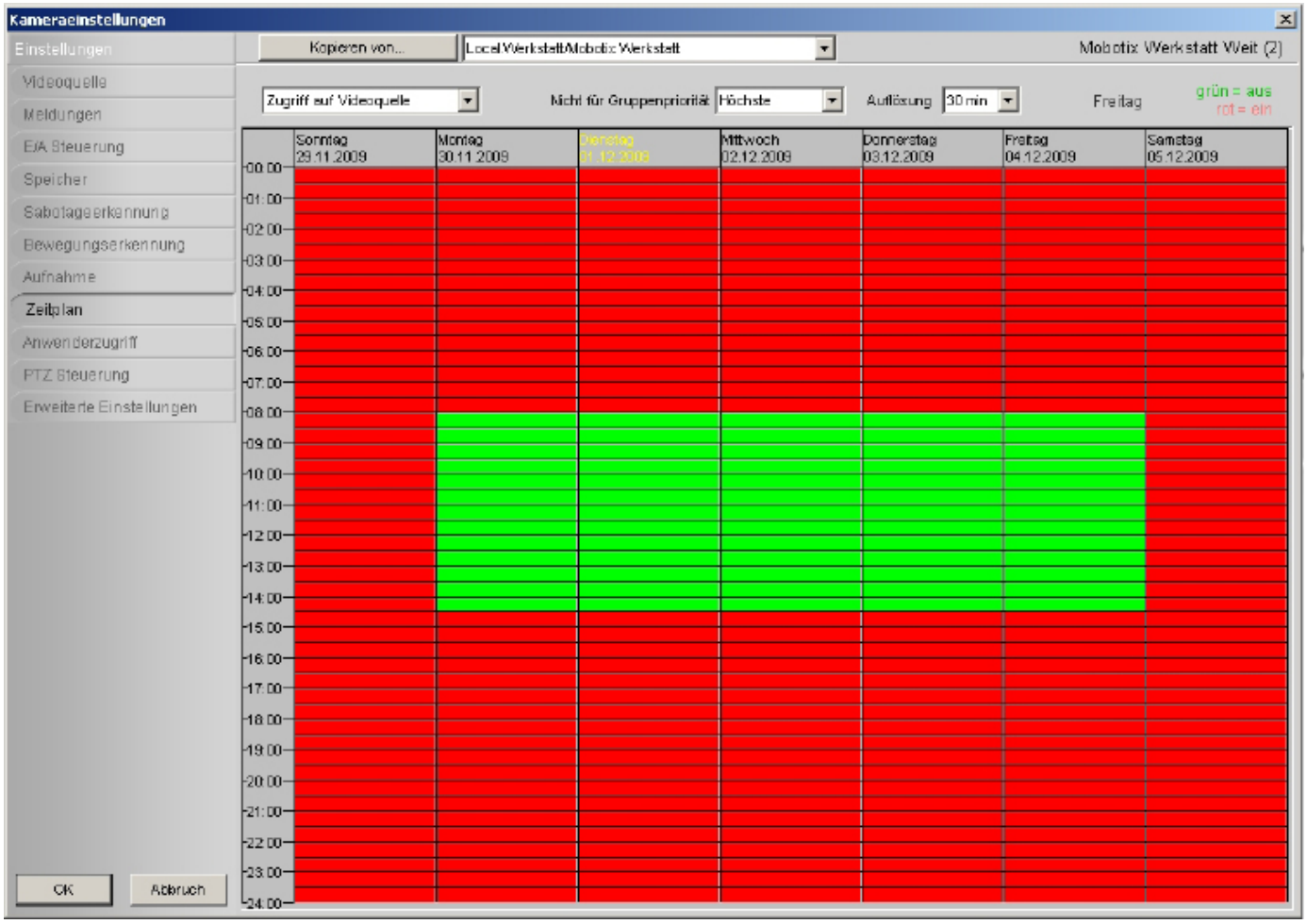
This card enables alarm reports triggered by Motion Detection or alarms triggered manually by the user to be defined. The message gives the report text to be displayed subsequently in the Report area (see Section 4.2.5).



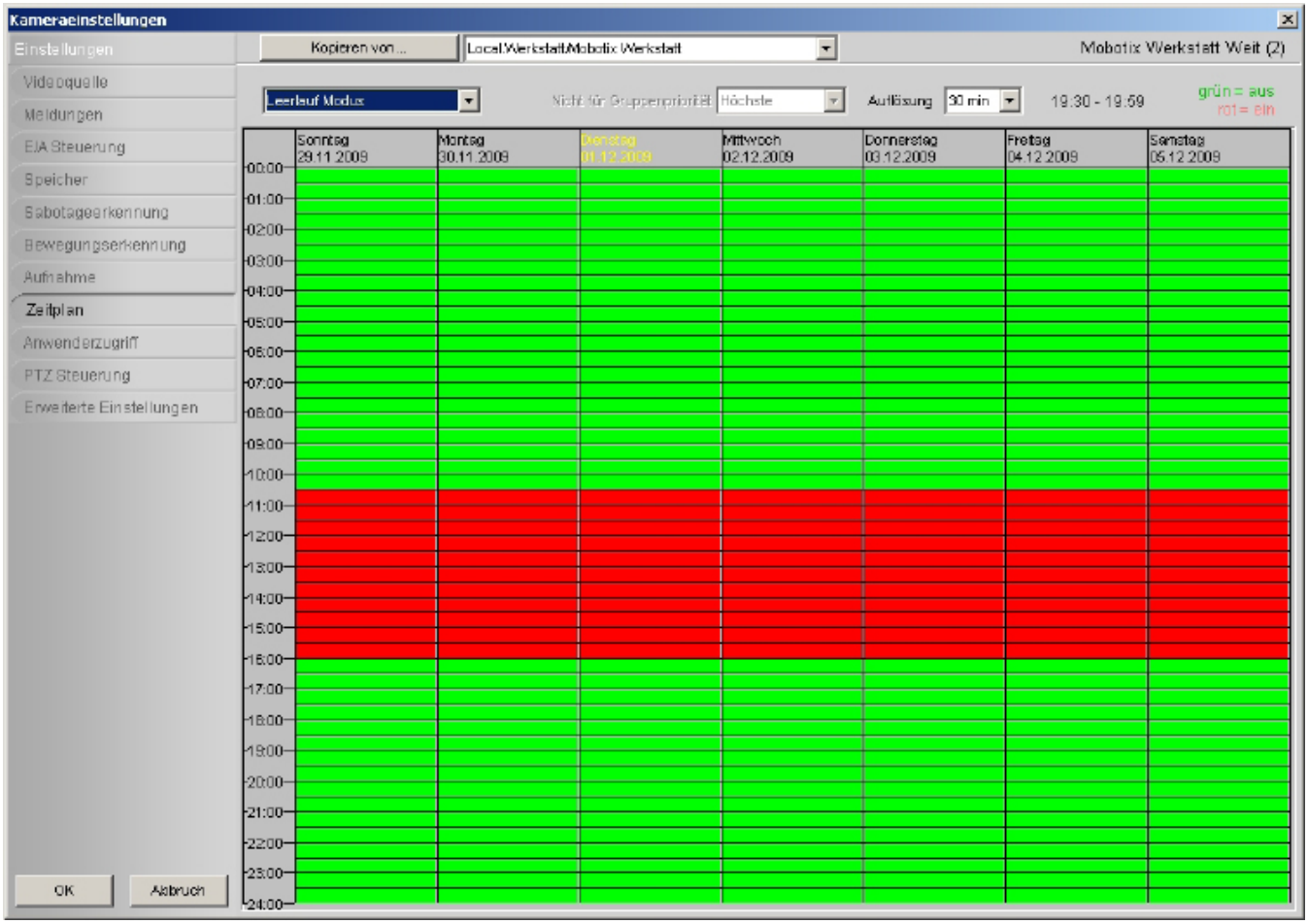
Motion alarm	Alarm triggered by activating Motion Detection
User alarm	Alarm triggered by activating the User button
$ input trigger alarm	Alarm triggered by activating an input
OPC Item alarm	Alarm triggered by activating a specific data item
Error alarm	Alarm triggered by a software error
Sabotage alarm	Alarm triggered by Sabotage
Message	Output text displayed in the Reports window
Memory	Preset triggered on Alarm
Memory call-up for the client	Preset called up for the connected network client

6.5.4 Time plan

Recording times, e.g. day of the week and time, are set on the Time plan Record card. The shortest definable time interval is 30 minutes and the longest is 8 hours. Red means recording, green means not recording.



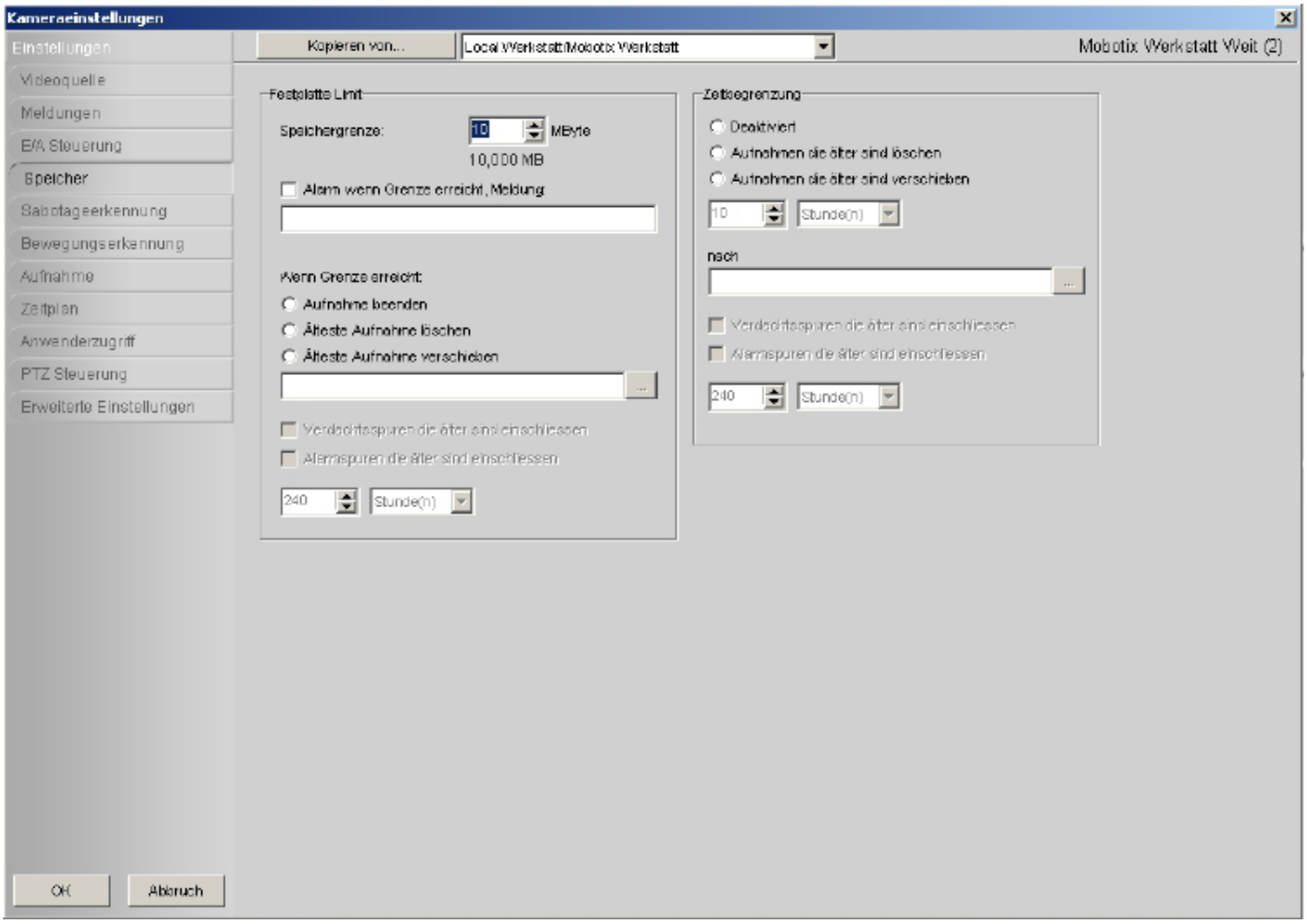
Weekly recording times can be set in 24-hour cycles.
The red highlights for recording times are obtained by right-clicking on the relevant box, on complete columns (days) or rows (times). The entire area is highlighted by right-clicking in the top left-hand corner. These boxes can be de-highlighted (to green) with the left mouse button. The time interval for the table setting is defined with Trigger. The Standard time plan means that the default recording settings defined in the Video sources Record card are used.



Let us now consider the two graphics (Standard mode, No-recording mode). This example demonstrates a few cases:
On Sunday, the entire day is recorded, since in Standard mode, the entire day is enabled for recording (Standard mode always has the highest priority).
Between Monday and Friday, recording takes place from 0000 until 0730 in line with the Standard Plan. As no recording times are highlighted there after 0730, the programme now checks the No-recording mode and records until 1230 in line with it. Since no recording times are highlighted between 1230 and 1700, no recording takes place during this period. (Returns to the Standard Plan from 1700).

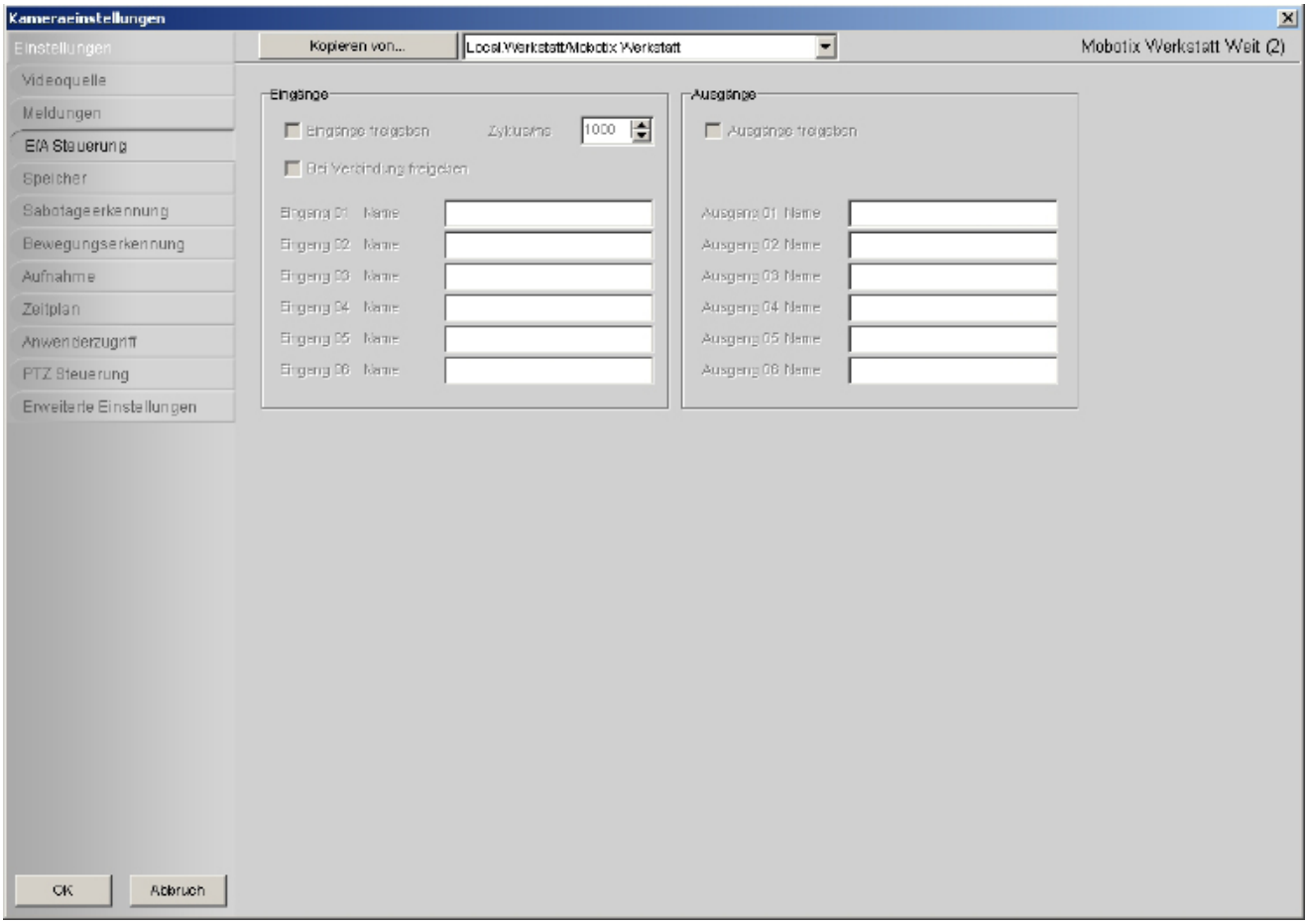
6.5.5 Memory

The Memory Record card is used to define a maximum memory limit for recording video sources. Once activated, an alarm report is issued as soon as the memory limit is reached. It is also possible to set the time at which a recording should be deleted or moved.
Note: In the configuration conforming to the BGV (German Health and Safety Regulation), the time for the deletion of Suspicion and Alarm tracks must be set to 10 days.



6.5.6 I/O Control

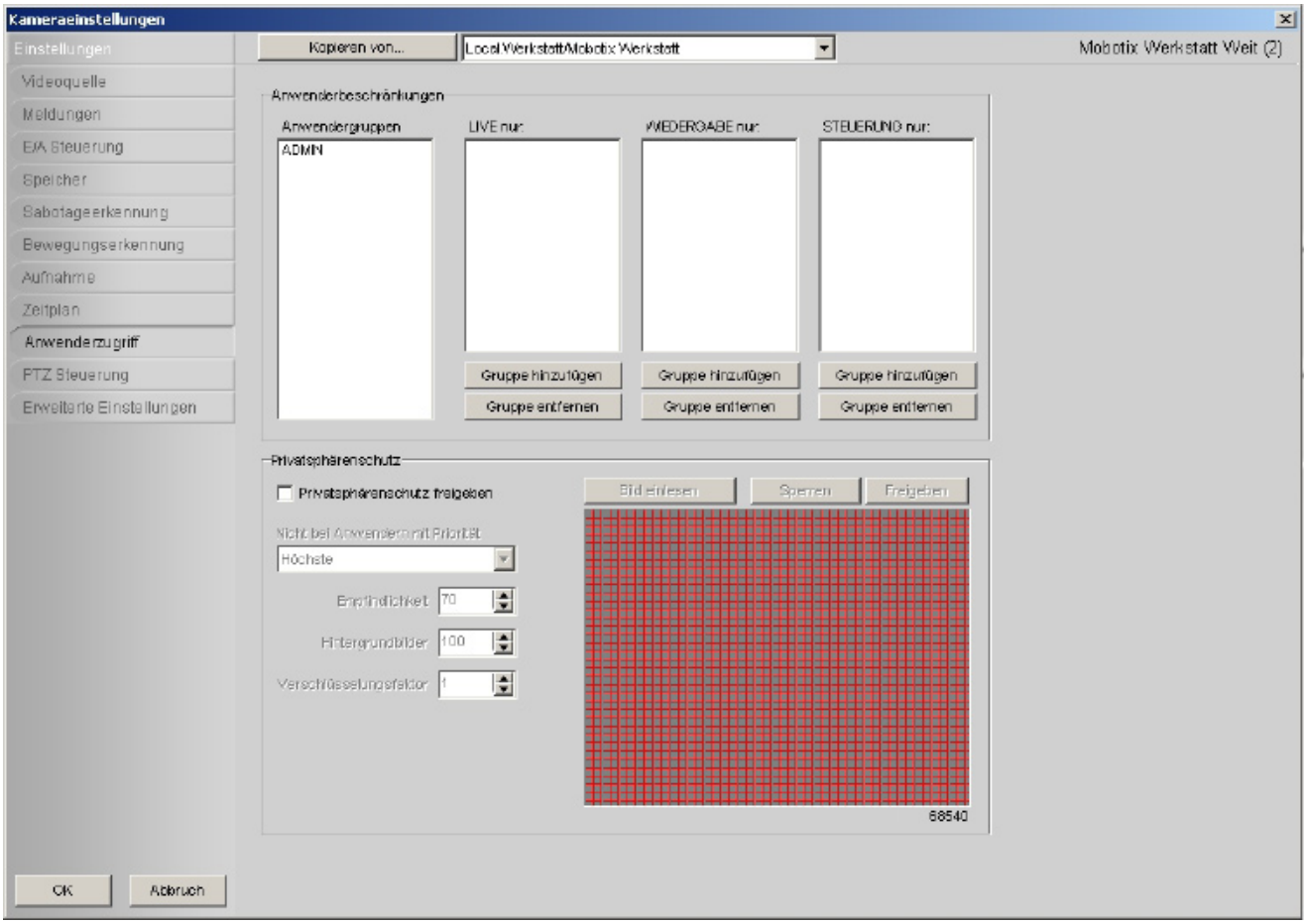
The I/O Control Record card allows the user to set and read external contacts.



Enable inputs:	Enables management of external contacts
Cycle/ms:	Sets the number of requests in milliseconds
Enable when connected:	Enables administration only when the equipment is switched on
Input $$ Name	Gives input names
Output $$ Name	Gives output names

6.5.7 User login

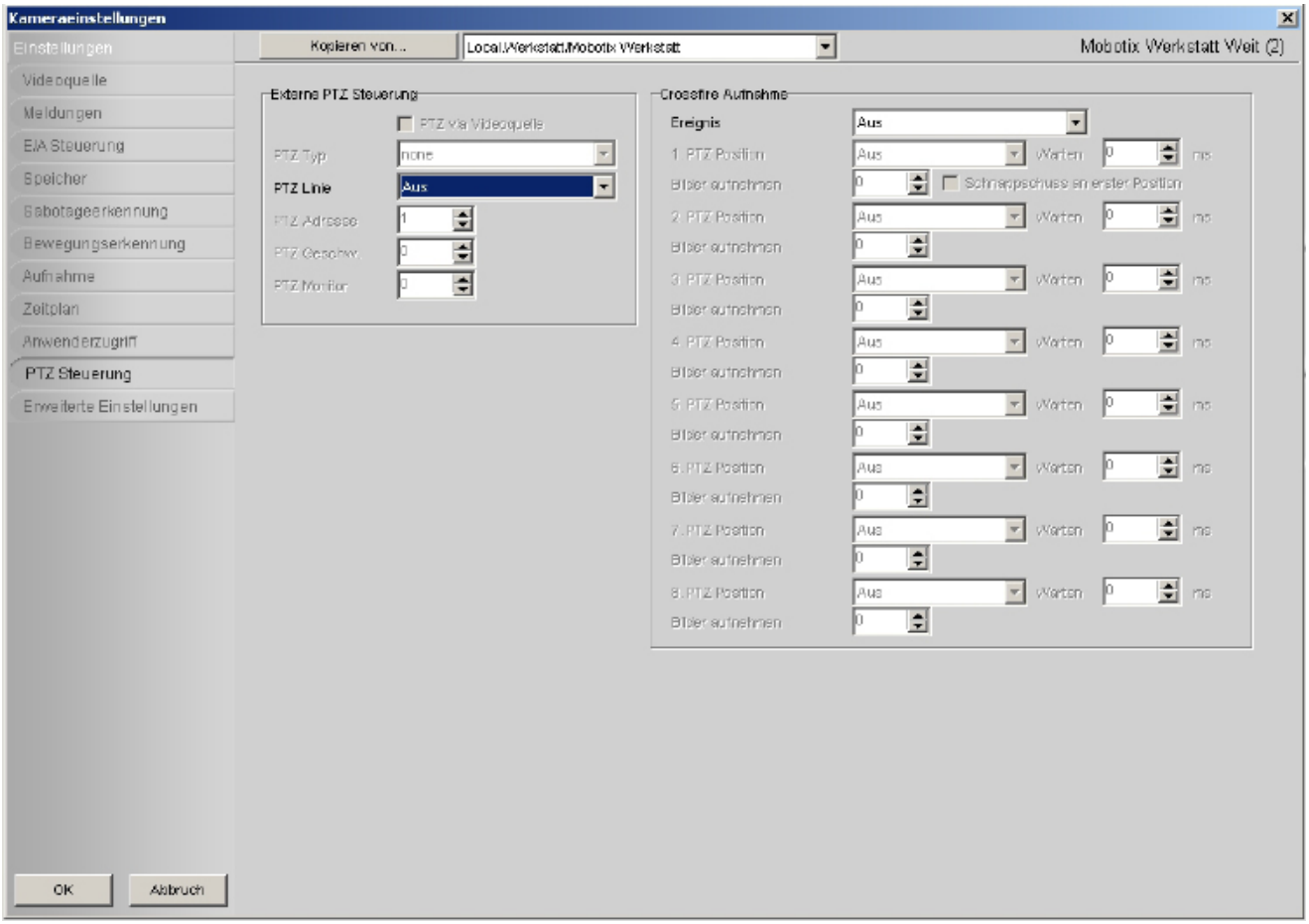
The User login Record card is a user administration card, used to allocate different user rights to assigned groups (see Configuration -> User groups register).



User groups	Installed user groups
LIVE only:	Contains groups only authorised to use Live Mode
PLAYBACK only:	Contains groups only authorised to use Playback Mode
CONTROL only:	Contains groups only authorised to use Control Mode
Add group:	Adds a selected group
Remove group:	Removes a selected group

6.5.8 PTZ Control

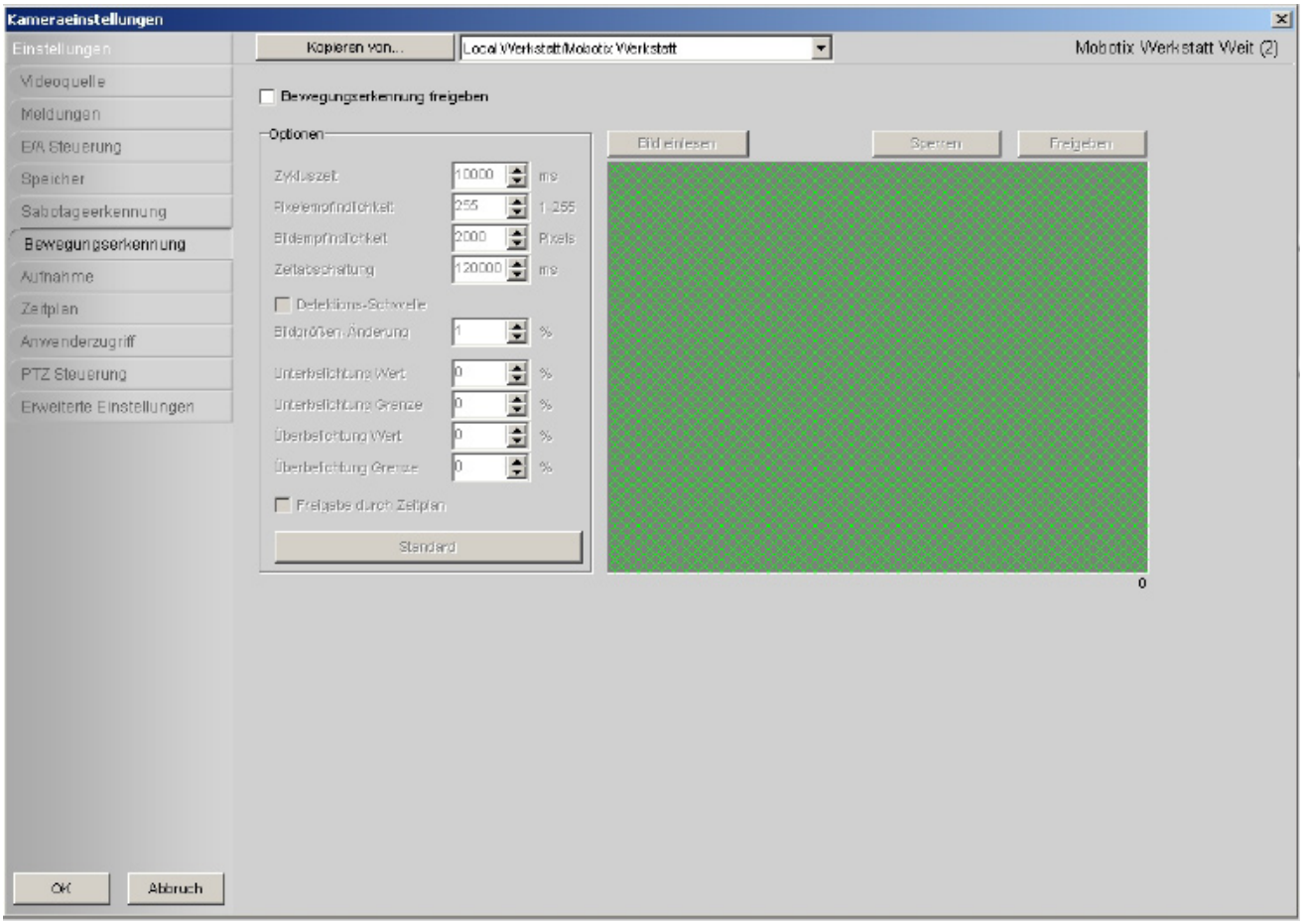
The PTZ Control Record card enables PTZ lines set in Configuration -> external PTZ Control to be triggered.



PTZ Line:	Uses a line set in Configuration -> external PTZ Control
PTZ Address:	Sets the PTZ address
PTZ Speed:	Sets the PTZ Control speed
PTZ Monitor	Sets the output monitor for crossbar controlling.
Event	Event triggers crossfire recording
$ PTZ Position	Steers the camera to the set PTZ position
Wait	Holds the camera in position for a preset time in ms
Take pictures	Number of frames to be shot

6.5.9 Motion Detection

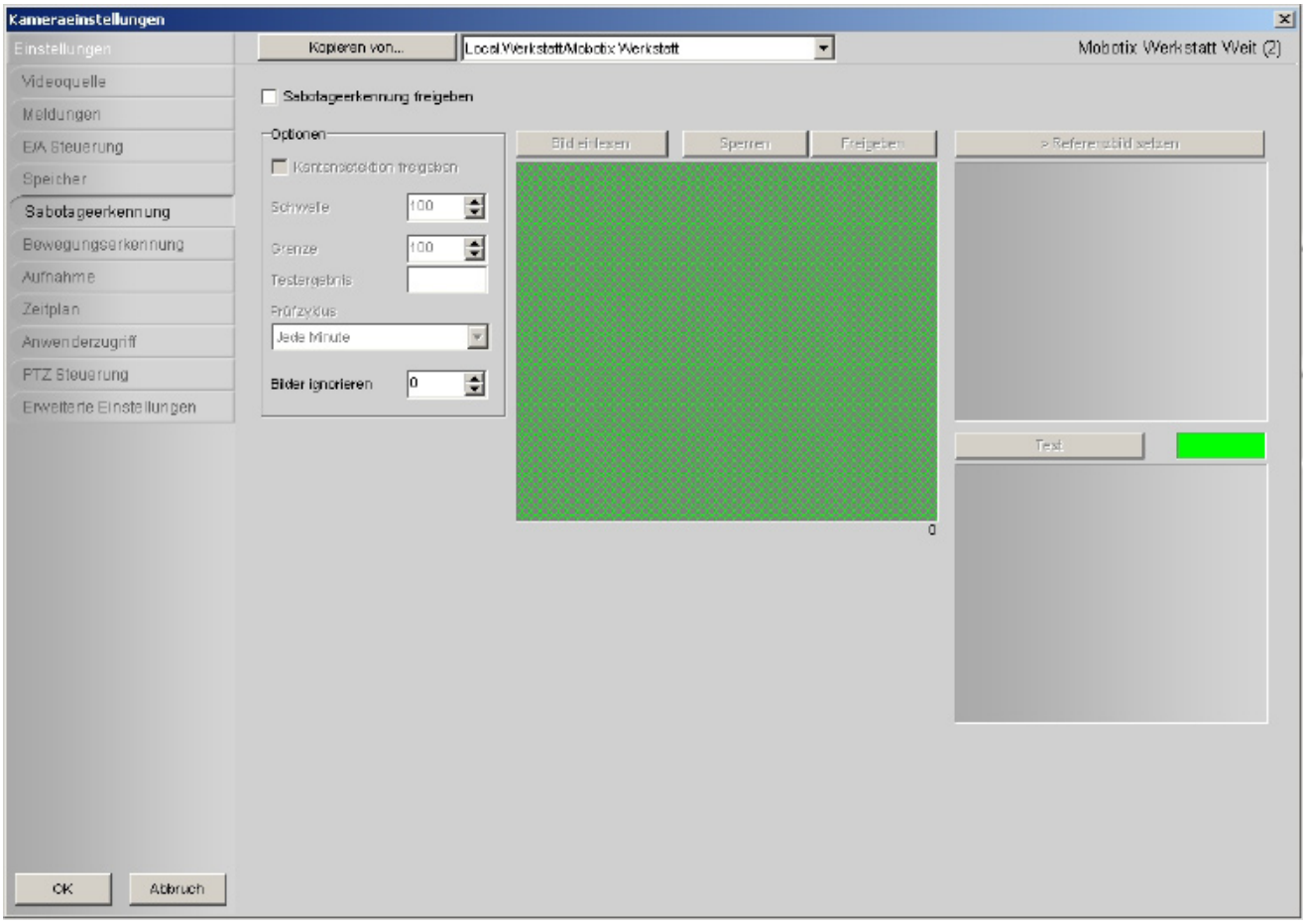
Motion Detection is enabled in this Record card, and different properties associated with it are defined.



Cycle time:	Required cycle time in ms for scanning a picture for changes
Pixel sensitivity:	States the colour value (grey scale) at which an alarm should be triggered [1-255]
Picture sensitivity:	Number of pixels required for a given resolution
Break time:	Period without alarm triggers
Enable through time plan:	Motion Detection recording exclusively within the specified time plan
Enter picture:	Installs the picture from a surveillance camera, i.e. sets up a camera connection in order precisely to mark out the surveillance area.
Fill:	Marks the entire area for Motion Detection (red screen)

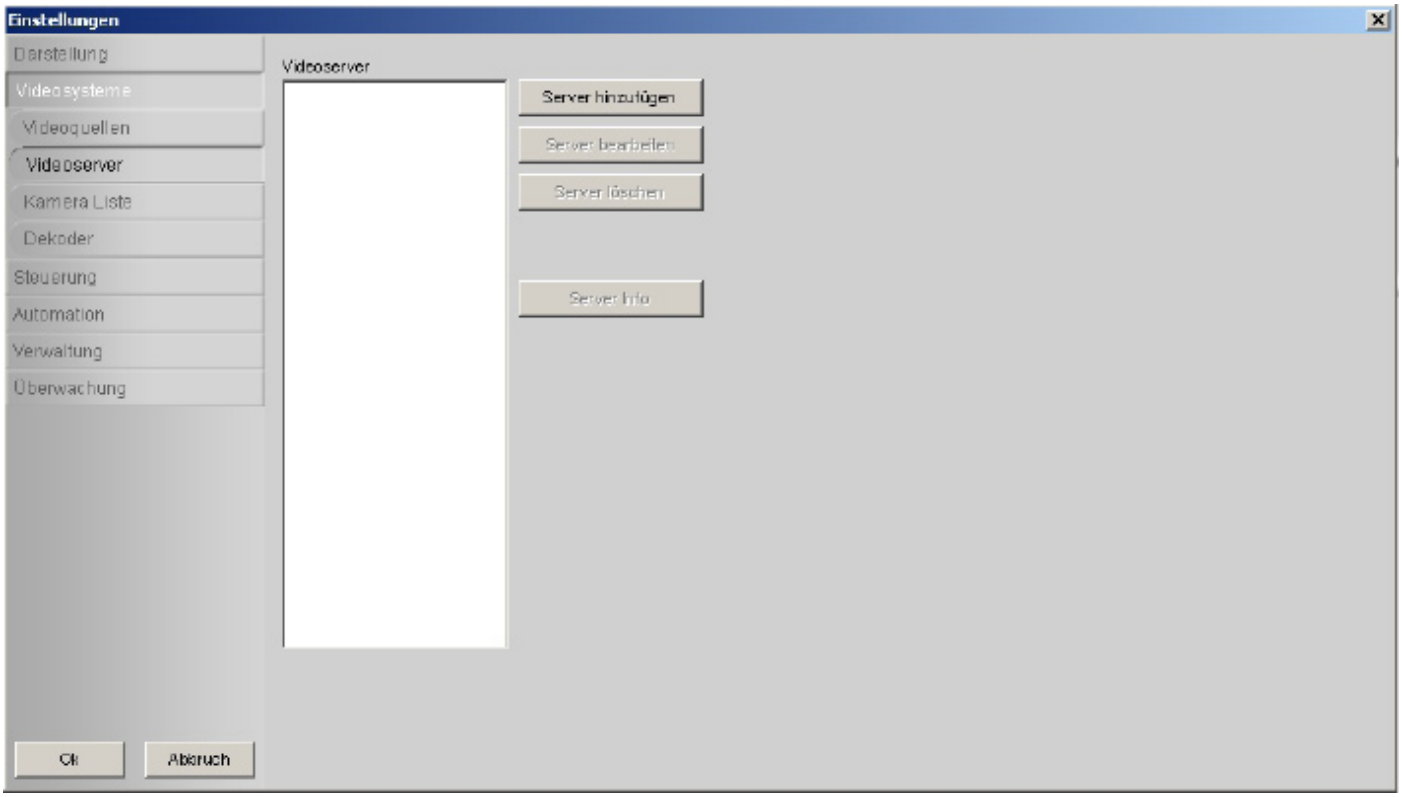
6.5.10 Sabotage Detection

It is possible here, individually for each video source, to activate Sabotage Detection, to detect changes to the video signal by comparison with a reference picture, and to report them if necessary.



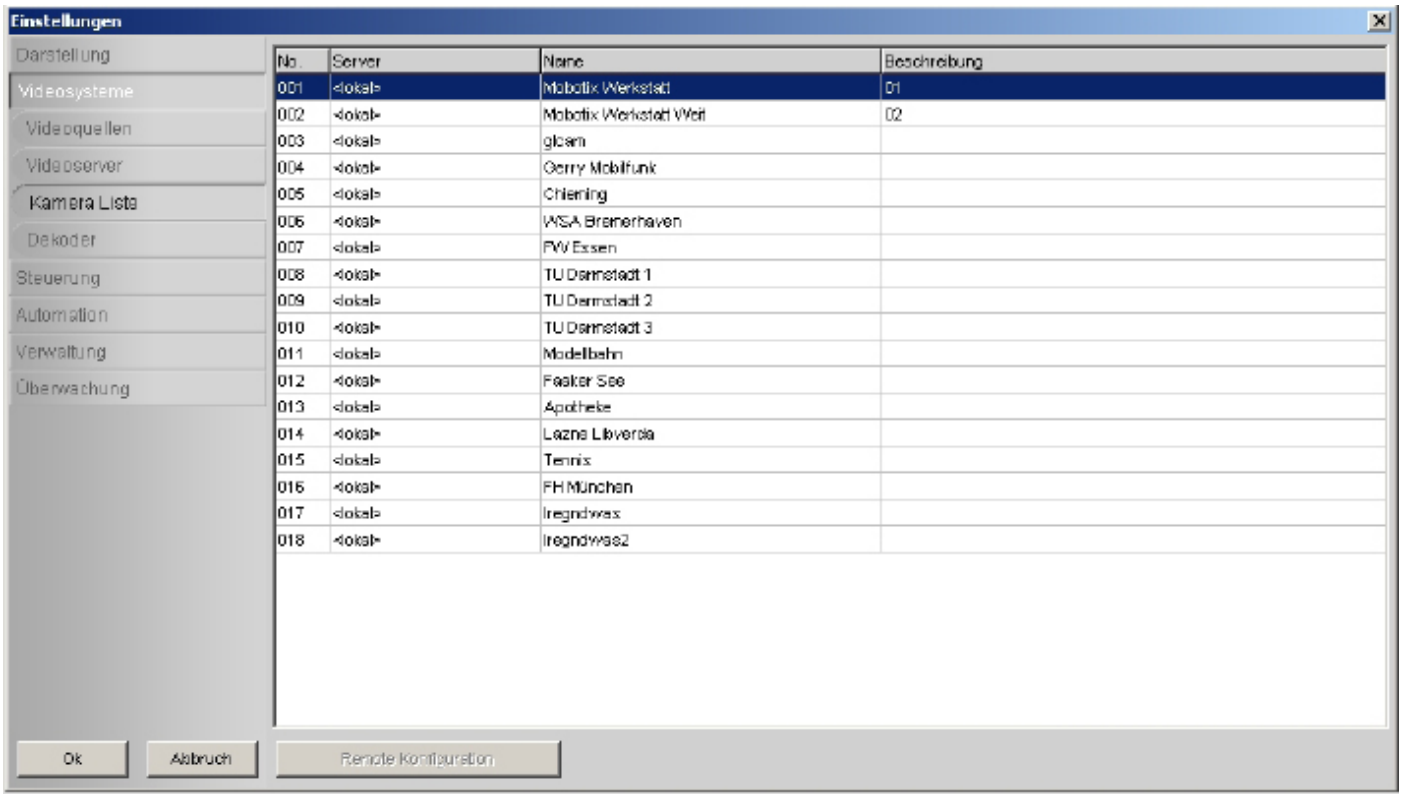
6.6 Video server

Up to 64 servers can be added and processed. An DiViCro videoserver manages up to 64 local cameras, i.e. a total of 4096 cameras can be networked. When a server is added, its name appears in the Video server Record card. Click on the relevant server to view the setting details in Server Info.



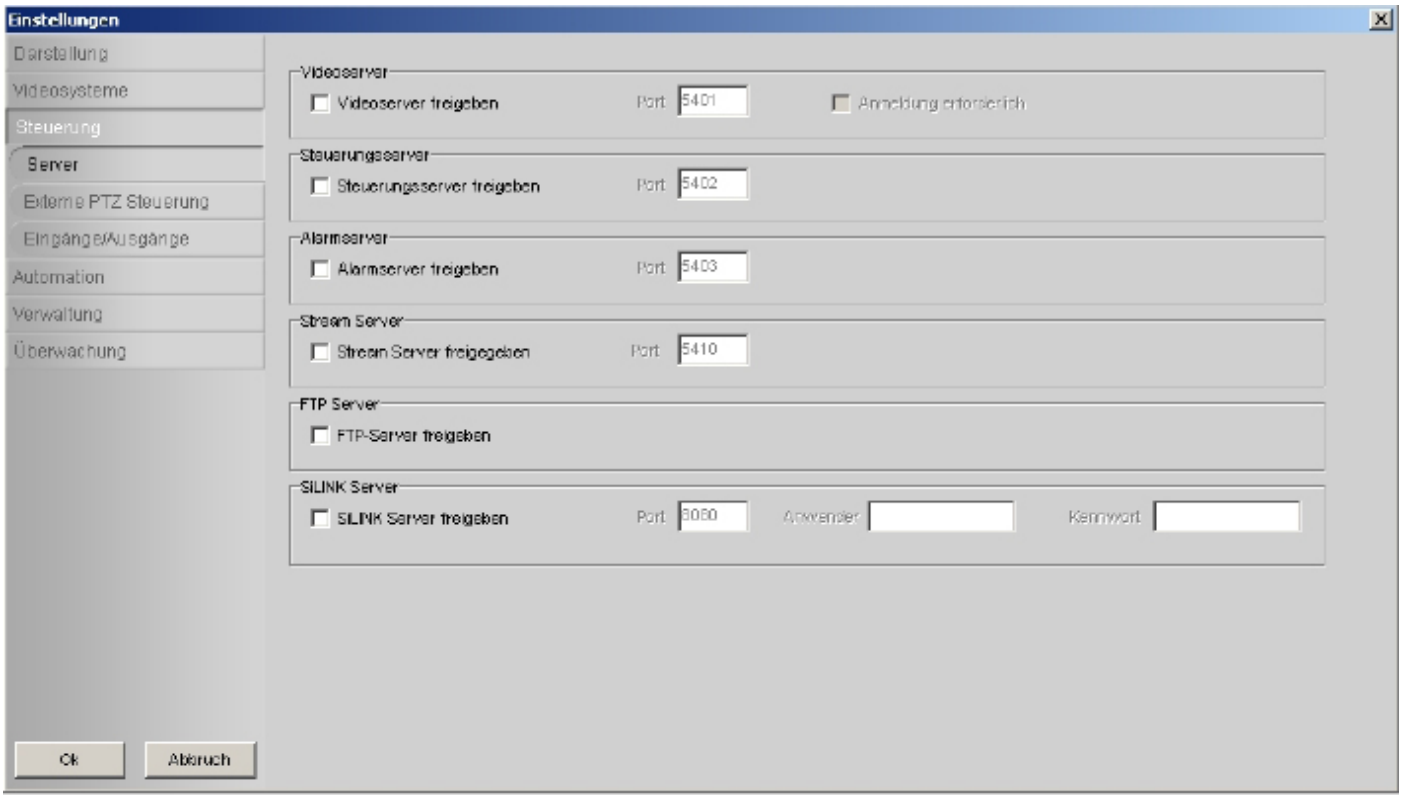
6.7 Camera list

Lists every camera already in the network and their properties.



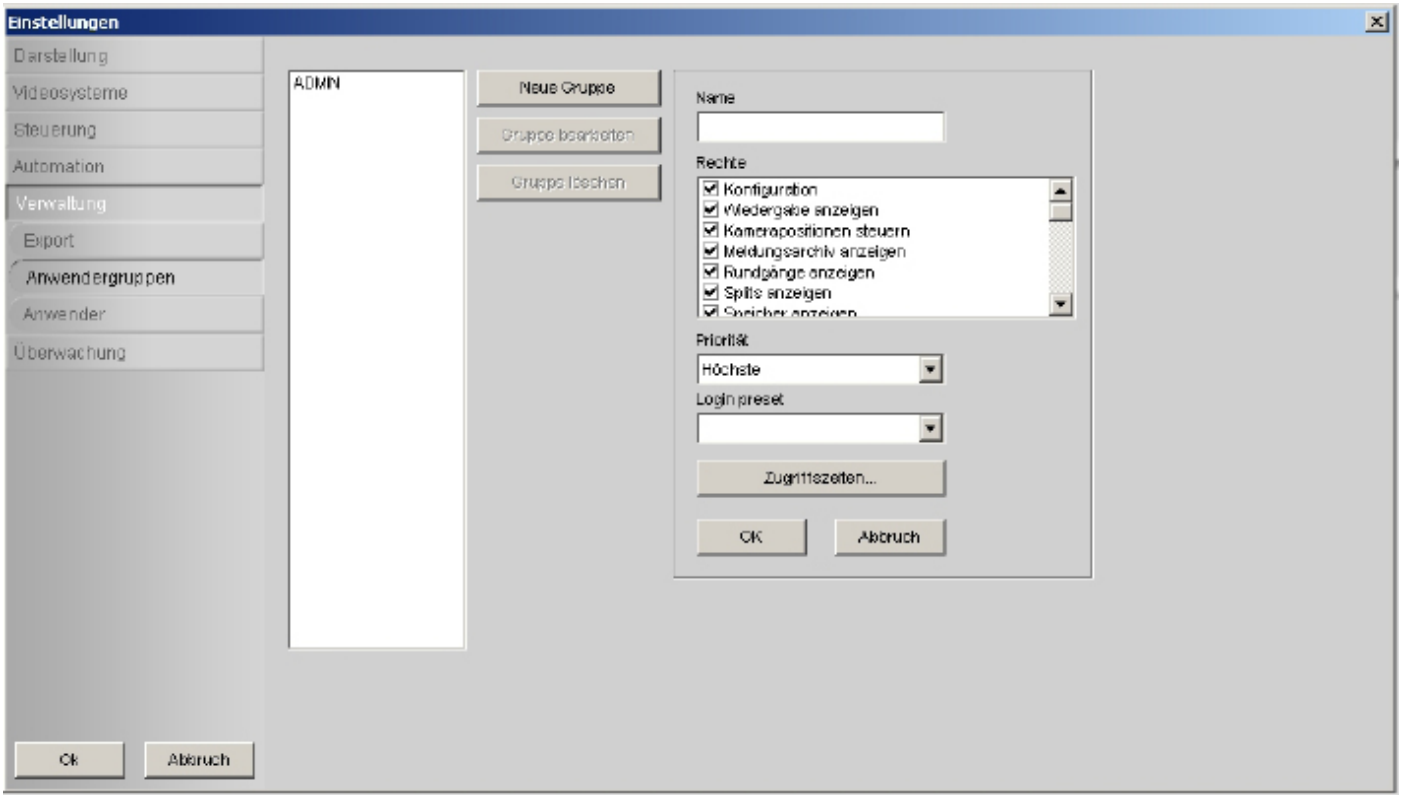
6.8 Server

The different server types are enabled in this register. A video server is provided for placing the installed cameras at the disposal of other clients, together with a control server enabling the DiViCro to be remotely controlled through an optional OPC server. The alarm server prepares reports for the networked clients. The WEB and FTP servers are also enabled here.



6.9 User groups

This screen is used to add User groups and to assign different rights to them.



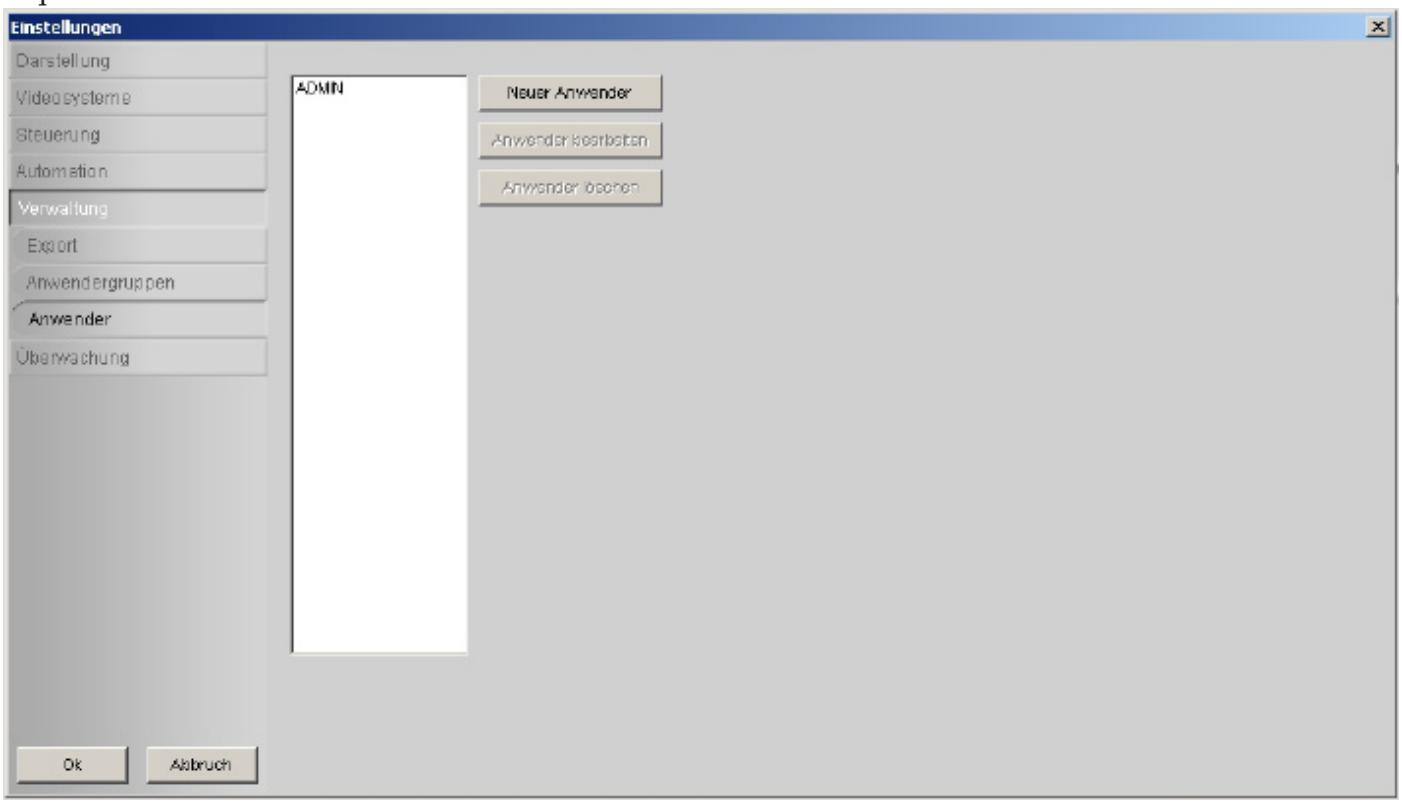
Configuration:	When deactivated, disables the Settings menu from the menu bar
Show Playback:	When deactivated, disables the Playback button in Function Control; no recordings of any type can be played back in the Show videos area.
Camera position control:	When deactivated, camera control is disabled, Live mode is deactivated in the Function Control area
Show reports archive:	When deactivated, disables the Archive button and the confirmed alarm reports in the Alarm mode of the Function Control area.
Show selected cameras:	When deactivated, disables the Camera circuit box
Show Splits:	When deactivated, disables the Splits box
Show Memory:	
Show Camera list:	When deactivated, disables the Camera list box

Show Reports list:	When deactivated, disables the Reports list box
Save Memory:	
Move Video window:	When deactivated, Video window cannot be moved
Remote logon:	When deactivated, remote logon to this account is denied
Show Connections window:	When deactivated, disables the Connections control window
Enable Programme end:	When deactivated, programme cannot be ended
Enable Video context menu:	When deactivated, access is denied to the Video context menu
Configure Sabotage Detection:	When deactivated, Sabotage Detection cannot be configured
Delete Reports:	When deactivated, Reports cannot be deleted
Administer Export:	When deactivated, Exports cannot be administered

ADMIN is a default and cannot be deleted.

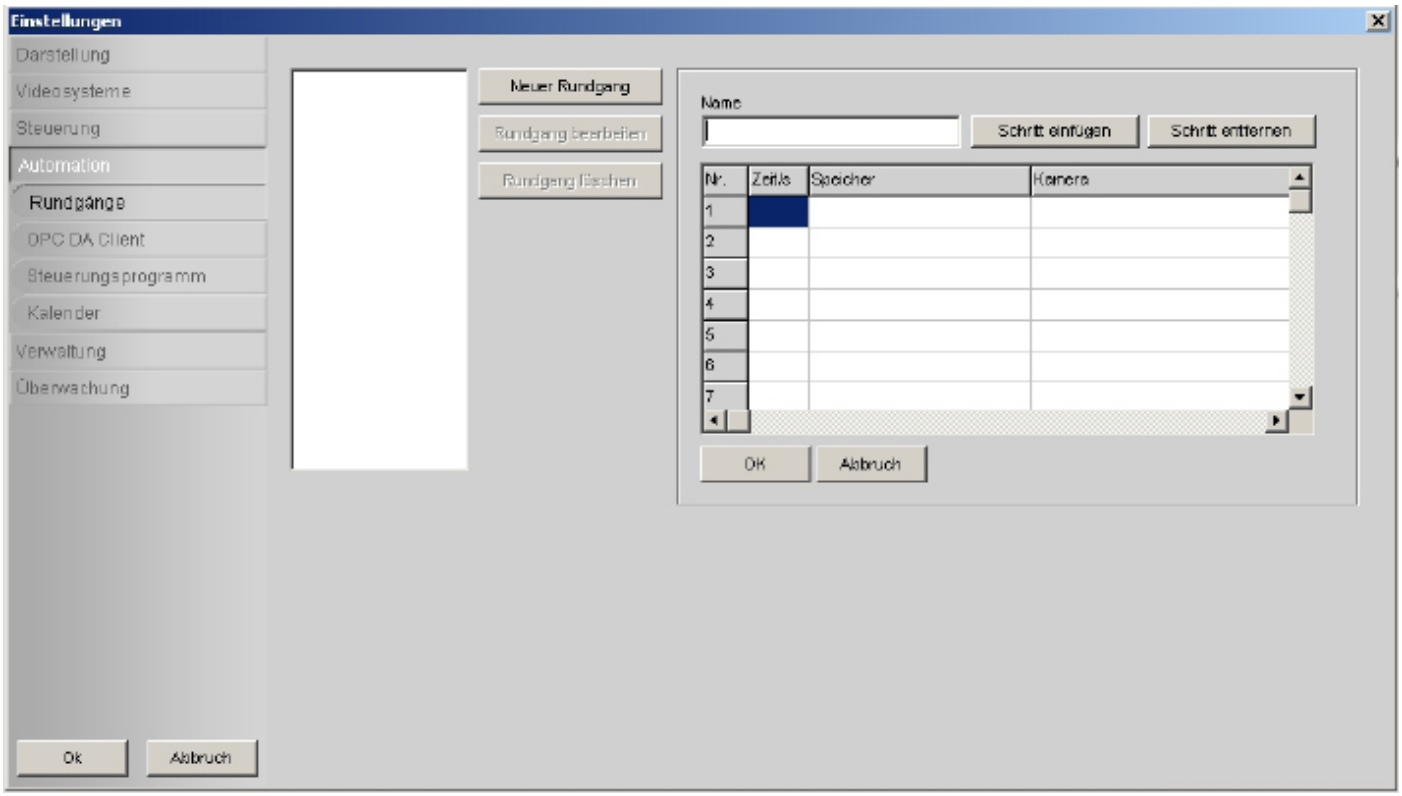
6.10 Users

Individual users can be added here, assigned to an existing user group, and a password is requested.



6.11 Select camera

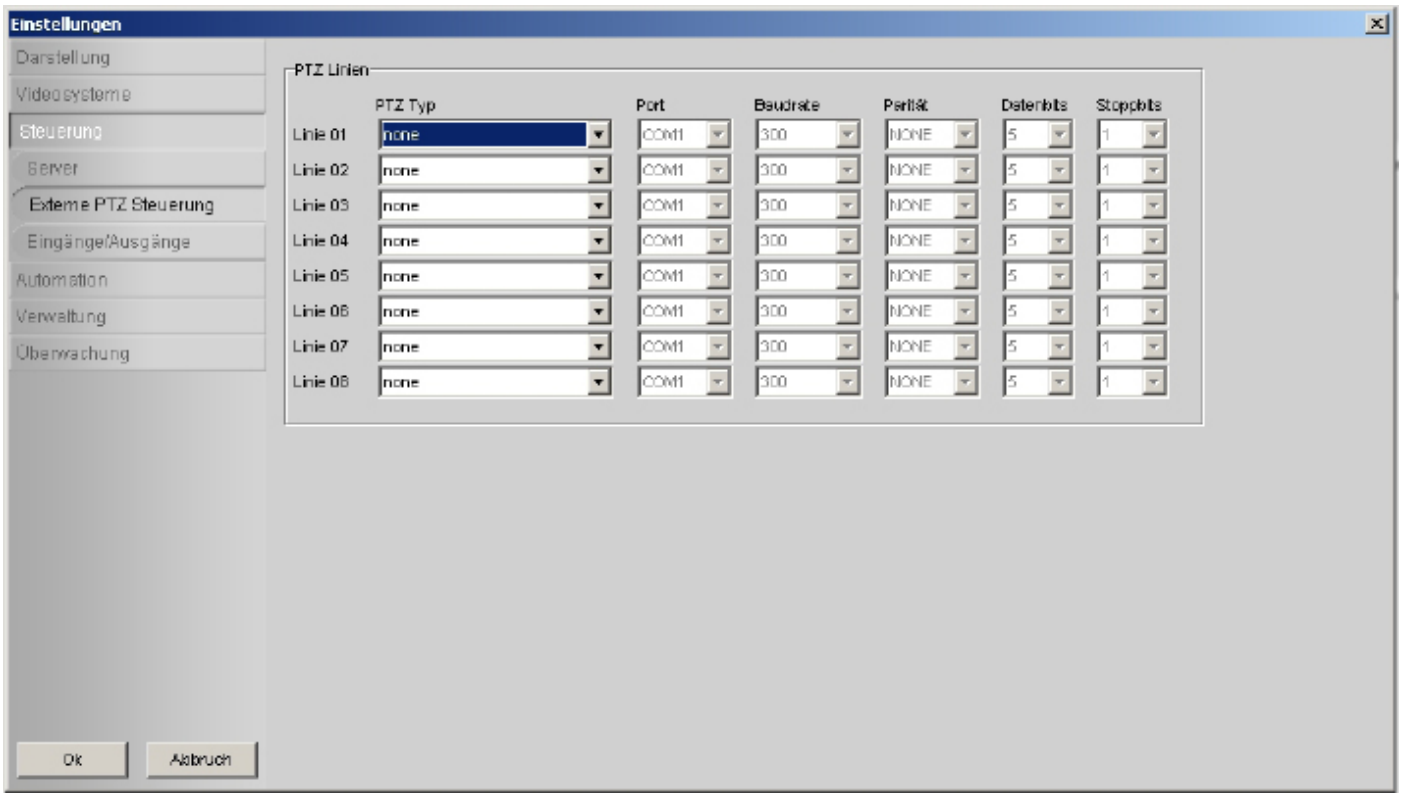
This Record card is used to set camera switch-on times and positions.



Time in seconds	Sets the step display time
Memory	Selects the memory to be called up -> see Memory
Camera	Selects a camera for which position control is also required.
Position	Selects the camera position.

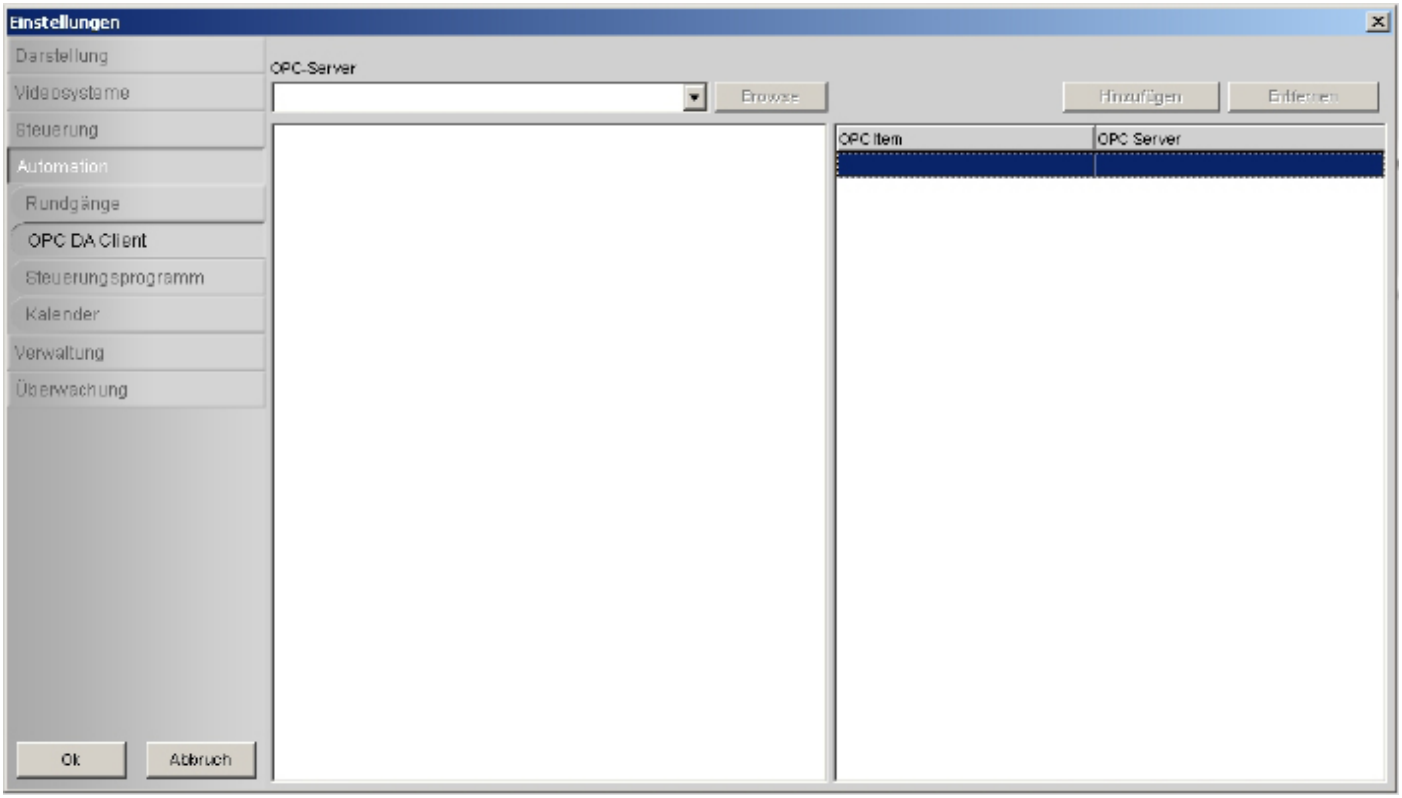
6.12 External PTZ Control

This Record card is used to configure the PTZ control for connected cameras.
This is done by specifying a PTZ type, the relevant interface and connection settings



6.13 Client OPC DA

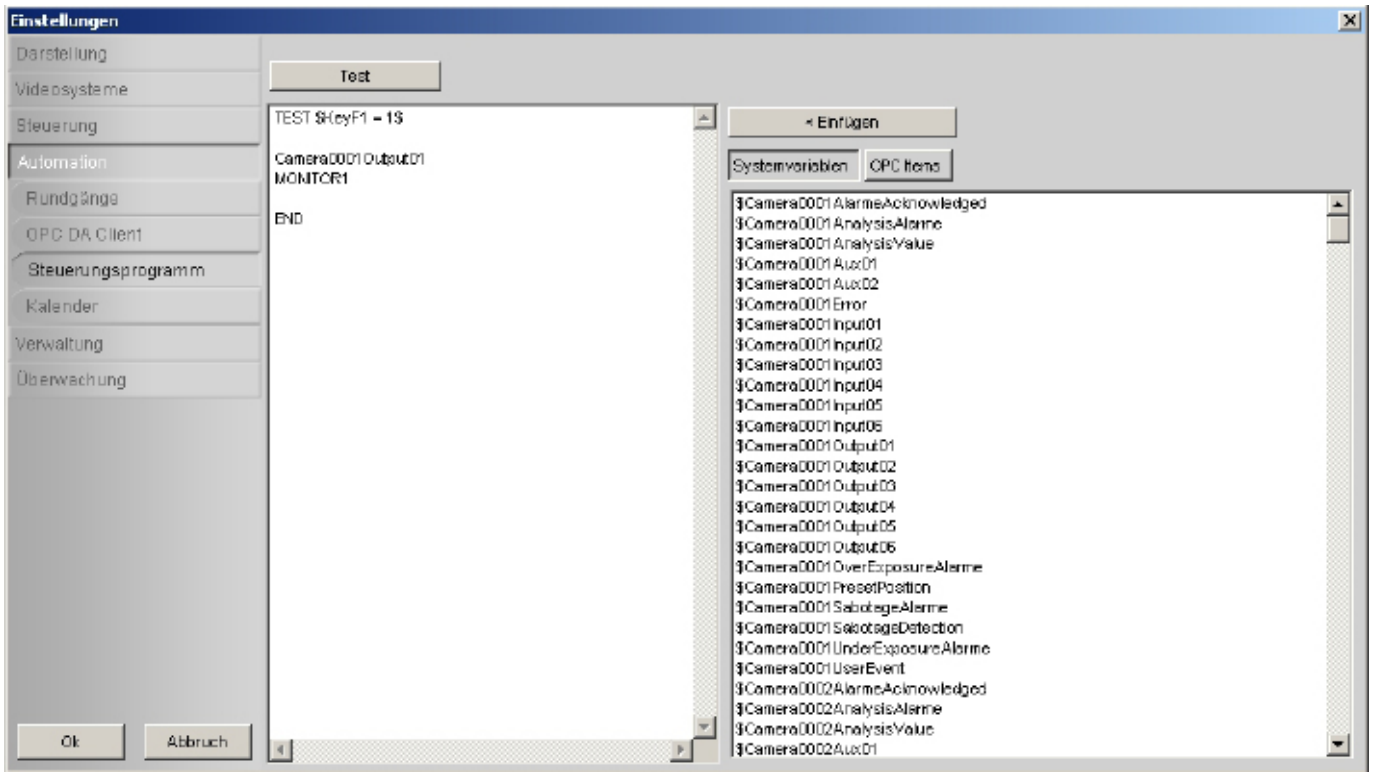
External input and output contacts and a choice of other systems like fire and break-in alarm systems, buildings automation and video systems can be installed with this screen.



The OPC-Server dropdown menu lists all of the OPC servers installed in the computer. The Browse button is used to view the selected OPC server and its items in the box below. These items can then be installed in DiViCro by clicking the Add button.

6.14 Automation

This Record card enables personal scripts to be set up, using the default system variables and installed OPC Items provided for the purpose.




```
test $KeyF1 =1
$SelectCamera=1
$ConnectMonitor=1
end
```

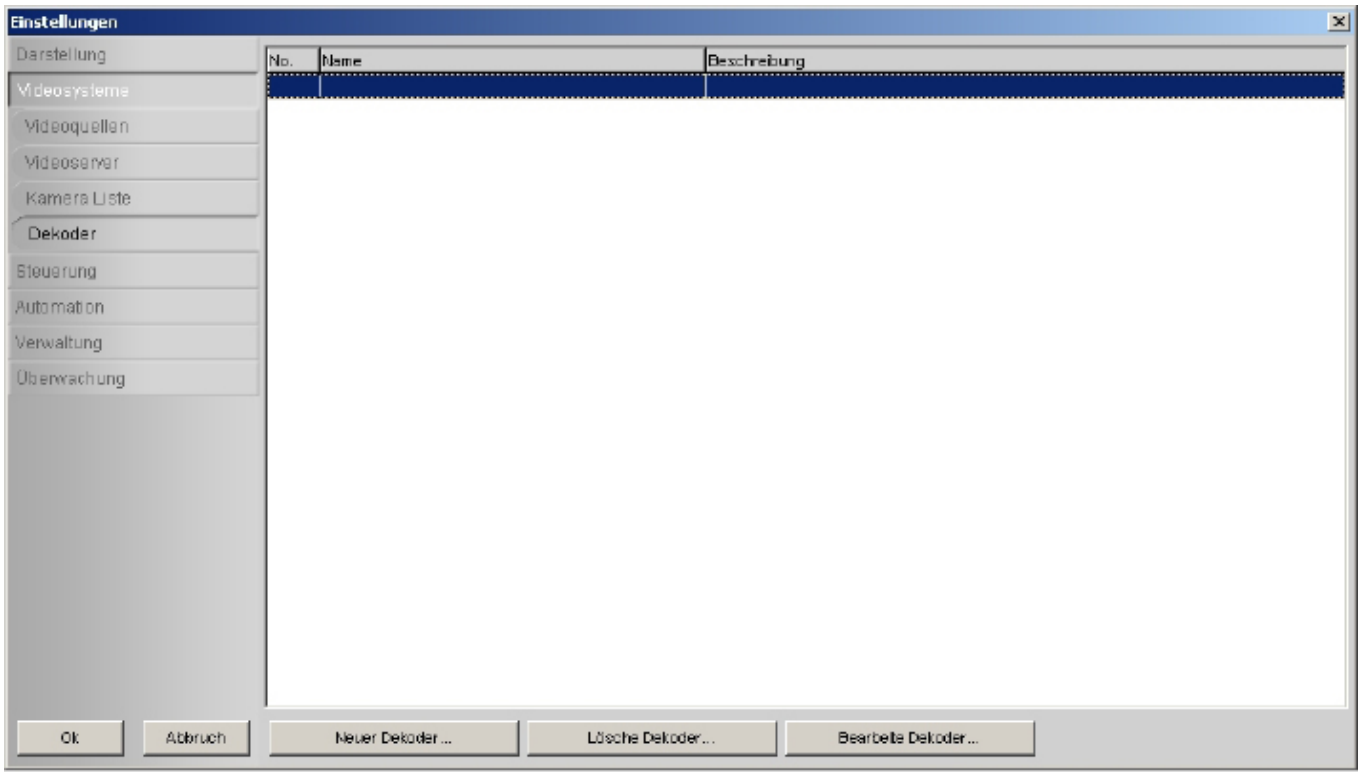
Operate Key F1 to connect Camera 1 to Monitor 1

```
test $KeyF2=1
$SetMatrix=4
$SelectCamera=1
$ConnectMonitor=1
$SelectCamera=2
$ConnectMonitor=2
$SelectCamera=3
$ConnectMonitor=3
$SelectCamera=4
$ConnectMonitor=4
end
```

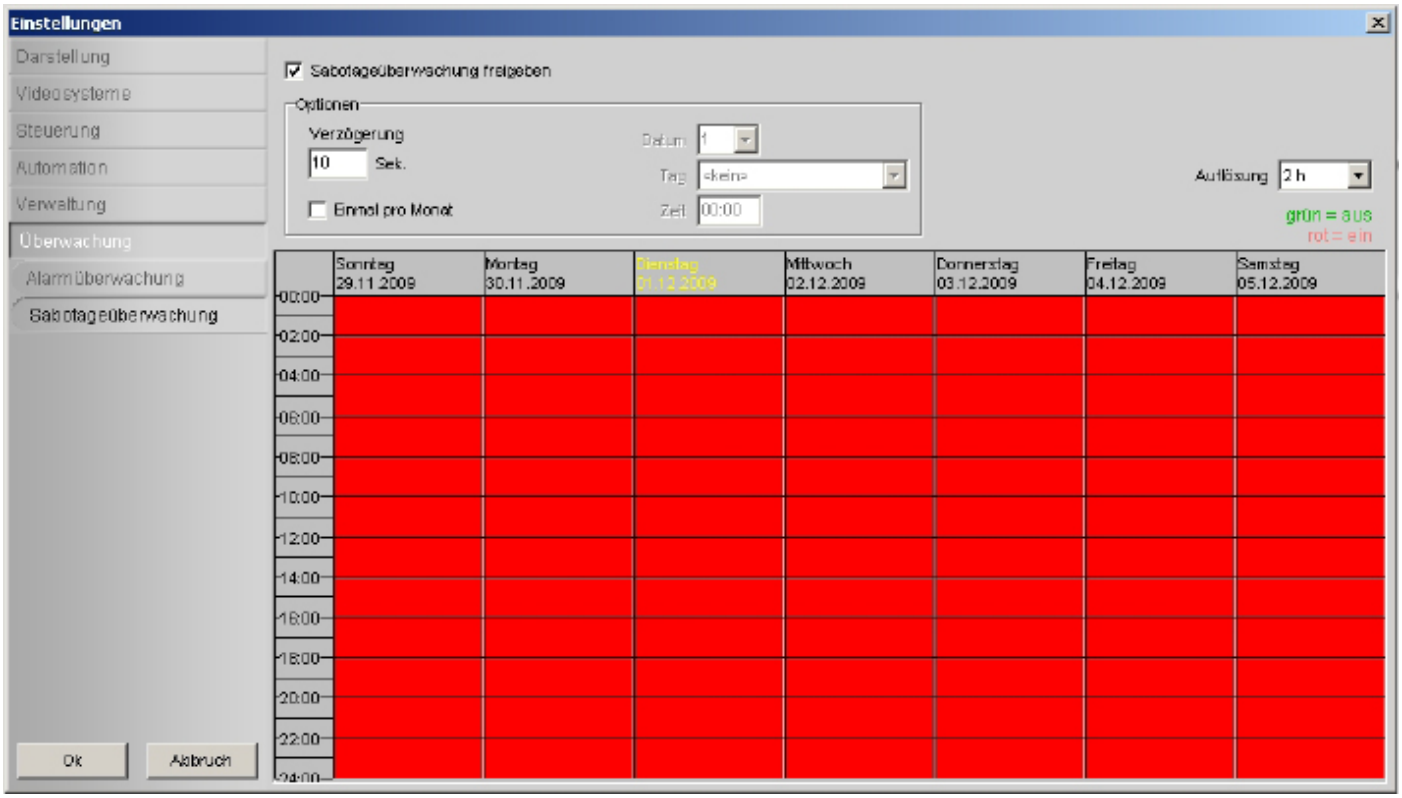
Operate Key F2 to call up a 2x2 Split (4) and to connect Camera$ to Monitor$

6.15 Decoder

The decoder setting can be used to activate a Gateway function enabling non AXIS-compatible video streams (JPEG, MJPEG, analogue) to be forwarded to the AXIS decoder. In this case, the connection between the video source and the decoder is not made directly, but through the video server.



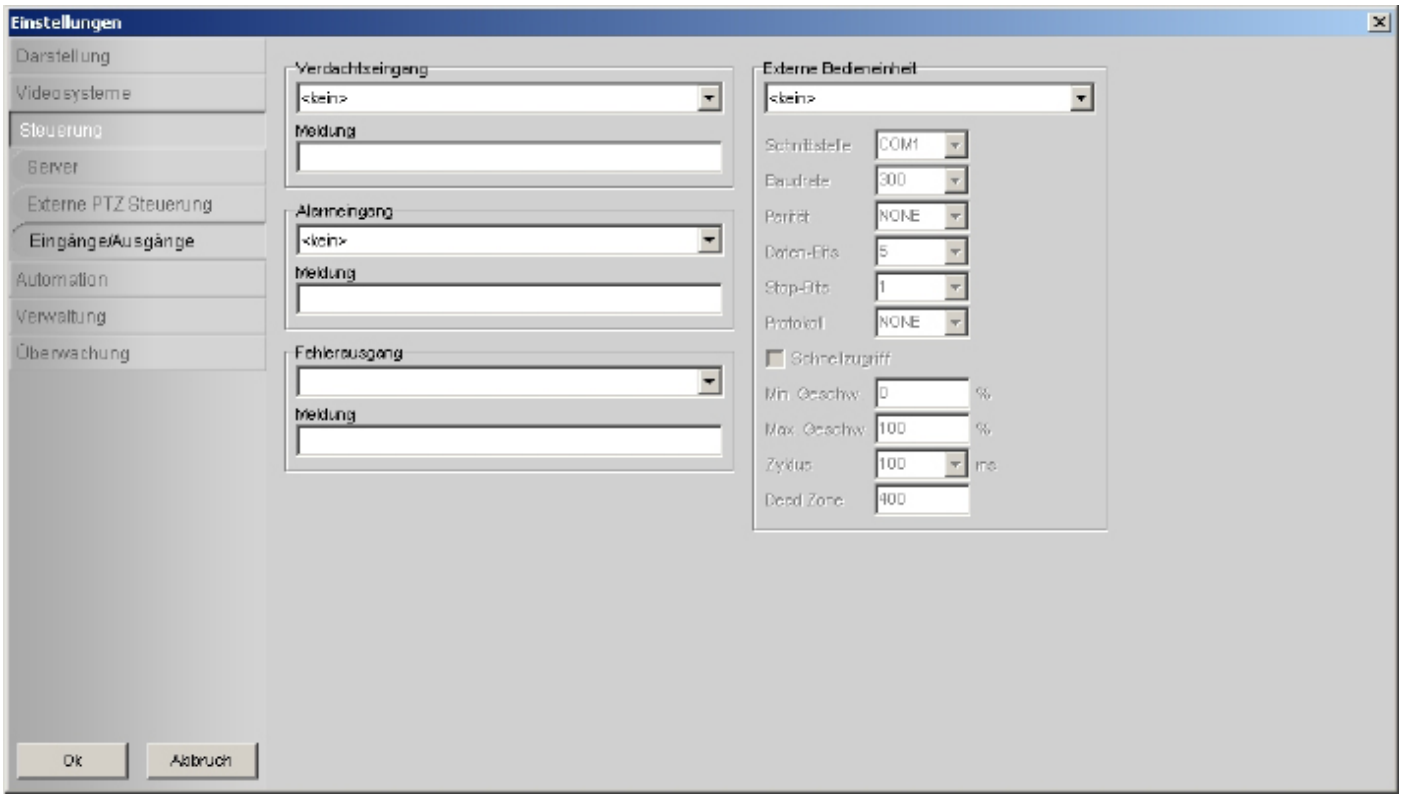
6.16 Sabotage surveillance



Activating the Enable Sabotage surveillance option at menu item New video source gives the opportunity to activate changed recording settings at specific times. The area required is selected in exactly the same way as for the Time plan (see Section 6.5.4).

6.17 Inputs/outputs, external control unit

This screen is used to configure suspicion and alarm contact utilisation and the collective output for system errors. An OPC item can be specified for each input and for the output. Video source failures and server connection problems are reported by the error output. This tab is also used to configure external control units used to interpret and transpose PTZ commands or recorder control commands sent by networked peripherals. No further configuring is required, apart from one exception (Panasonic WV-CU 650 control unit -> see Appendix).



7 Setting up the Programs desktop

7.1 Layout Mode

To deactivate/activate the Graphics mode, change to Layout modeand click on the Graphics checkbox to install or remove created pictures and graphics.

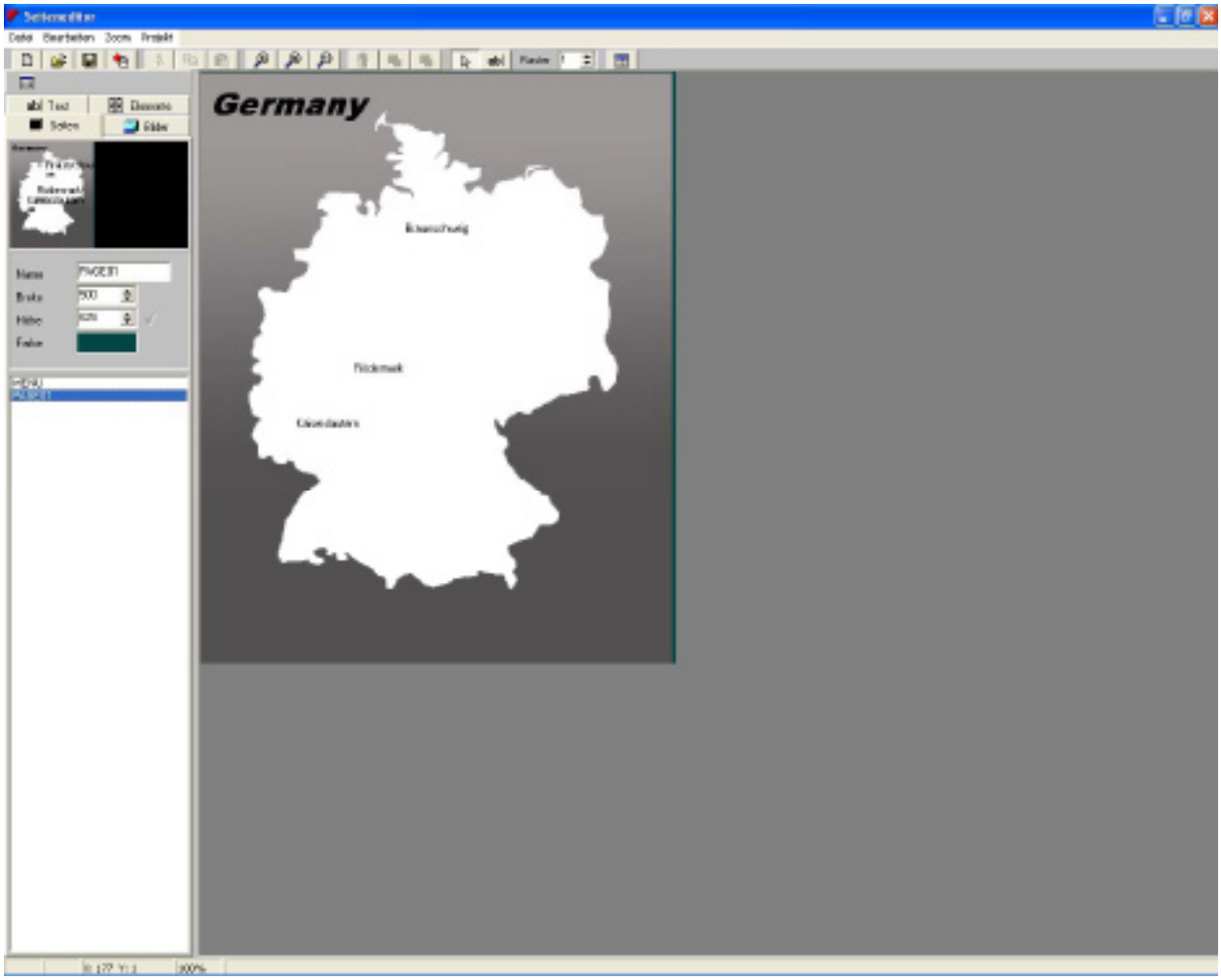
7.2 Editor pages

7.2.1 The Toolbar

	Create new page		Fit page
	Open selected page		Delete object
	Save page		Bring object to front
	Import AutoCAD		Send object to back-ground
	Cut (Clipboard)		Select pointer
	Copy (Clipboard)		Open a text box
	Paste (Clipboard)		Add/change screen
	Zoom out		Remove/add parameter guide
	Zoom in		Page preview (ALT + F4 to quit)

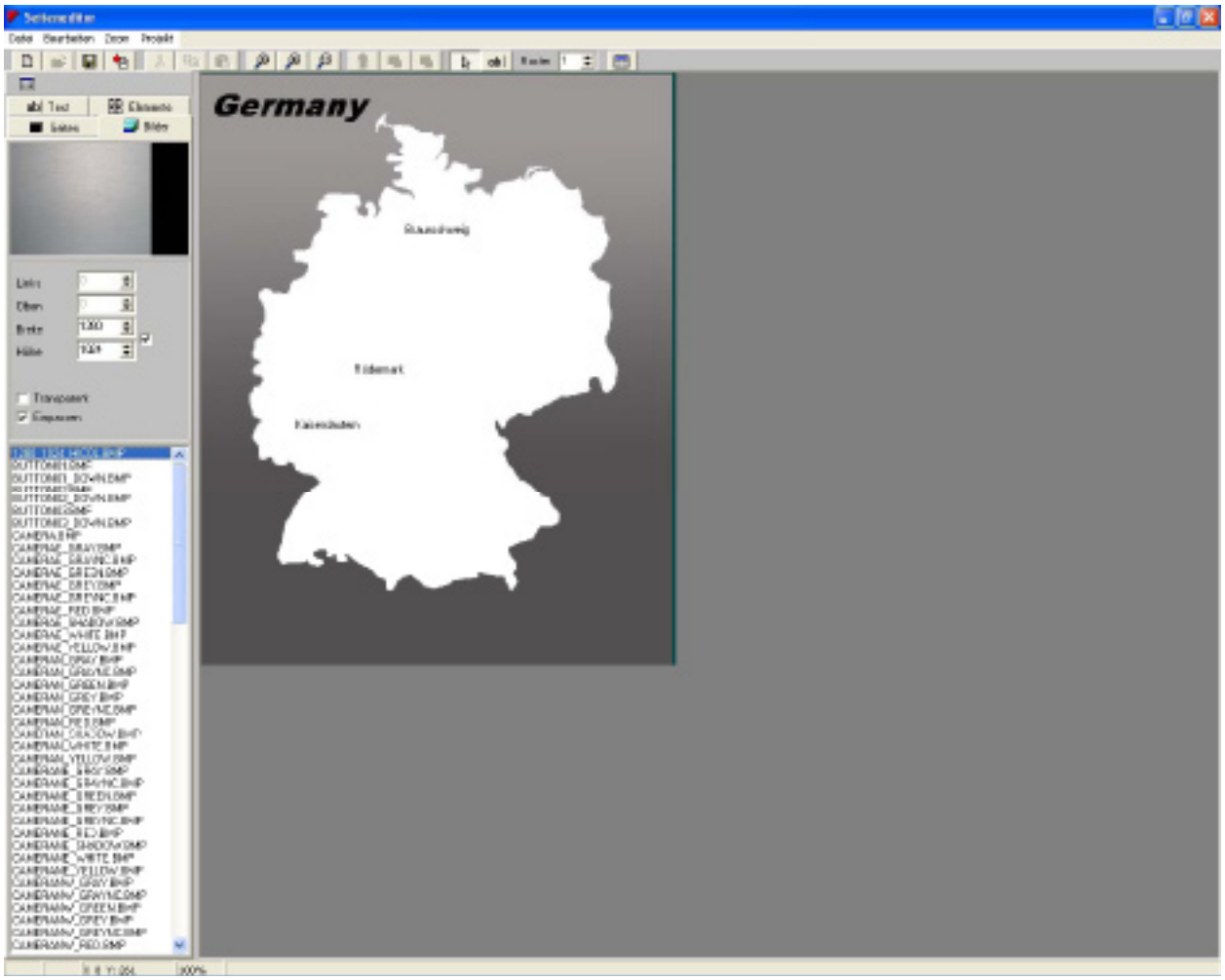
7.2.2 The Pages tab

The first item of the Page Editor Start screen is the Pages tab. You can use this screen to manage pages you have created, create new pages, change page height and width and to name pages you want to save.
Always make sure that you make changes with the red bracket.
A reduced whole page preview in BMP format is always displayed at the top left of the screen.
The page you have created and the preview can be found in the “\DiViCro\PAGES” directory.



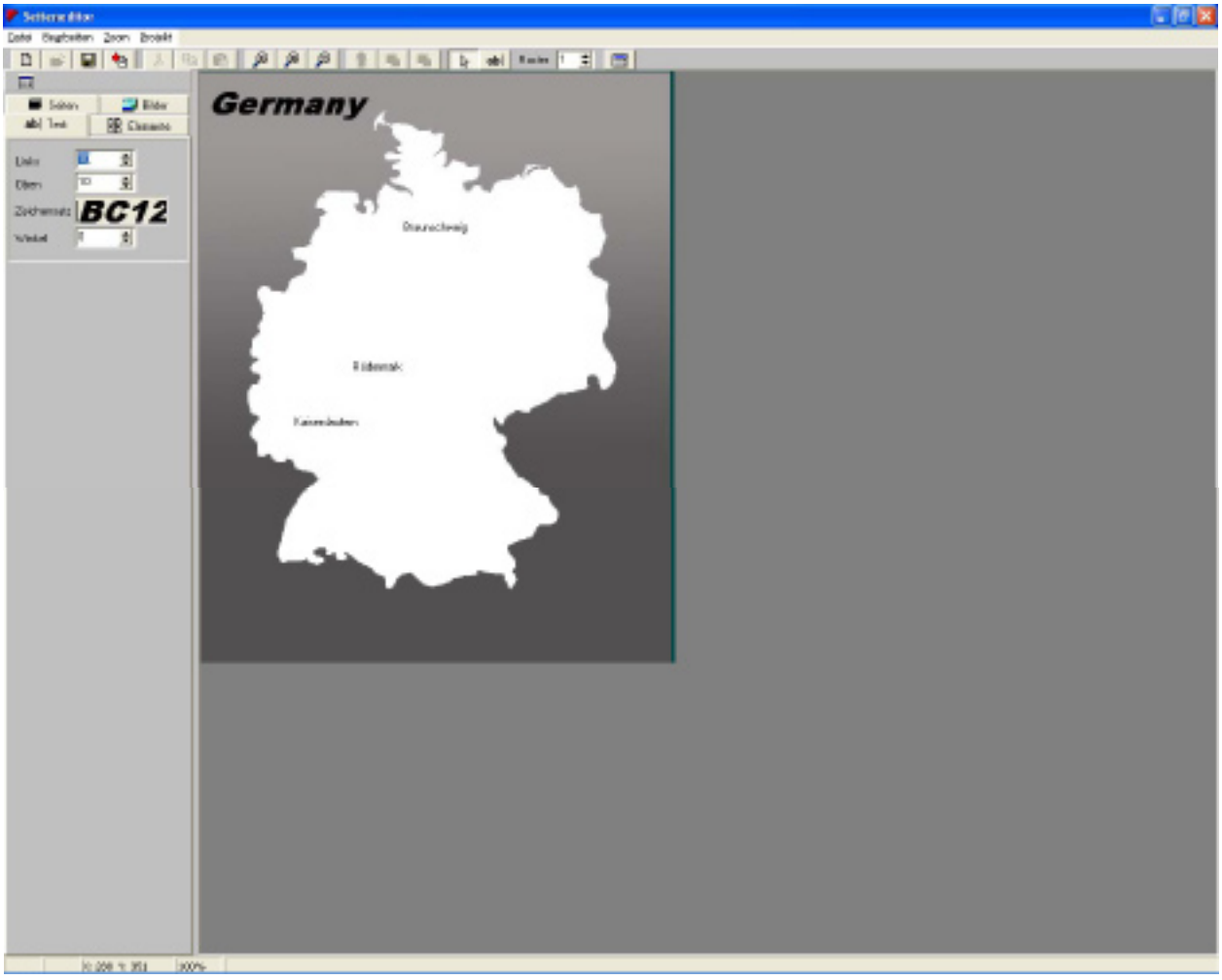
7.2.3 The Pictures tab

You can use this screen to select pictures from the checkbox at the bottom and use drag&drop to move them in any format to the page you have created.
Use Left and Top to set the position of the picture, unless it has already been moved manually to the required position. The Height and Width of the picture can be adjusted in the checkboxes below, or manually, directly on the picture. The ratio remains proportional only as long as the relevant checkbox is activated.
Picture transparency is also adjusted in the checkbox.
The Fit function ensures that the picture graphic fits the picture in the event of size changes.
All pictures are kept in BMP format in the "\DiViCro\PICTURES" directory.



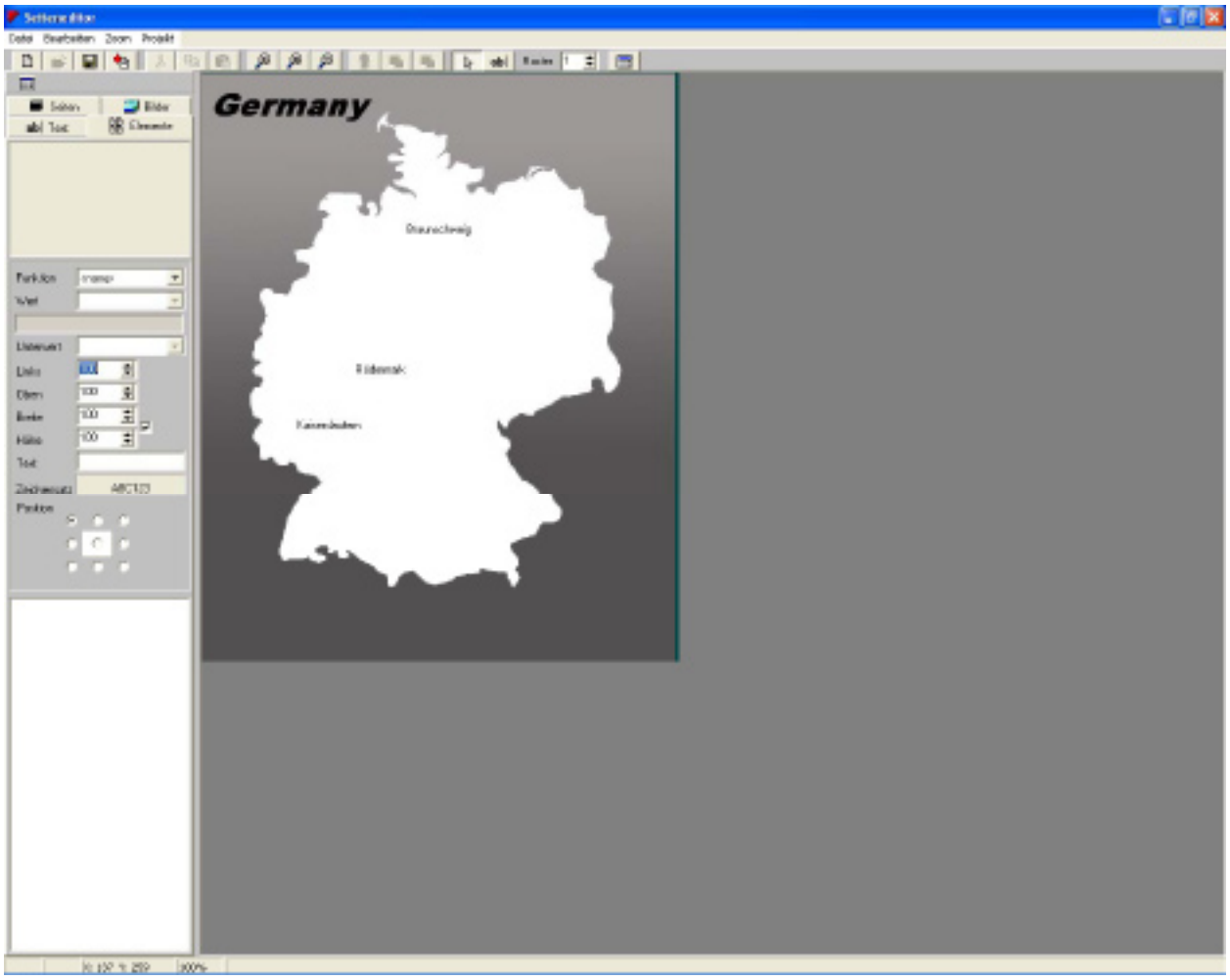
7.2.4 The Text tab

This tab enables you to create any number of text boxes and position them on the page. To do this, click on the “Open text box” symbol on the toolbar and then on the position on the page where you want to place your text passage. Now, you can write your text. To change or edit text, click on the relevant text object and then on the “Open text box” symbol on the toolbar. To change the symbol set, click in the “Symbol set” box.



7.2.5 The Elements tab

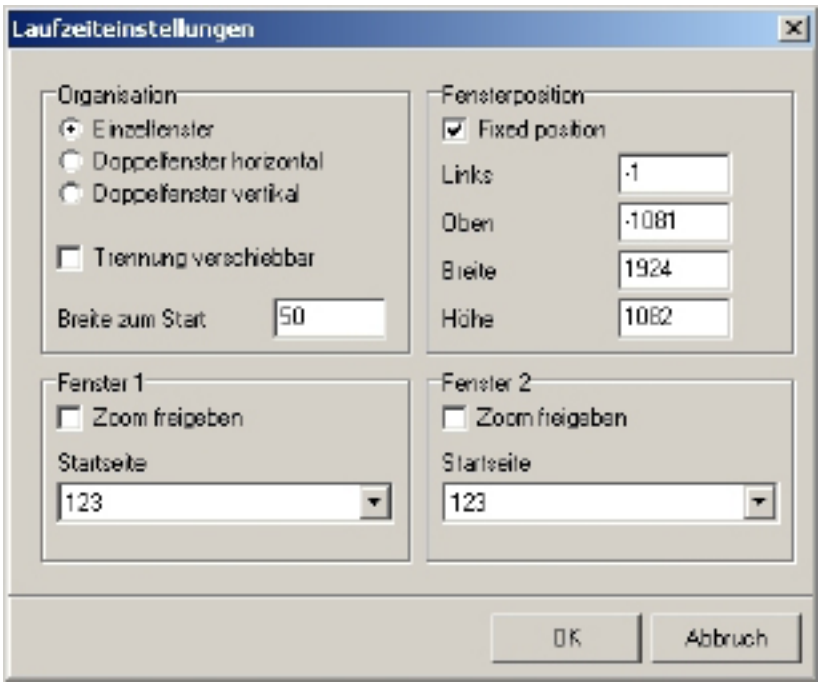
Elements are the “control units” of the desktop you have created. They are used to produce and control graphics with functions.
The elements are moved using drag&drop from the list or preview picture to the required position on the page. The position, width and height of selected objects can then be changed at the “handle” points or using the checkboxes.



The function gives the object’s application type. Value and Subvalue are then used to assign objects for connection or for use.
Text shows the object label. The label can be changed by clicking on Symbol set and aligned by checking the Radio button.
The actual elements are defined in a file (\DiViCro\ELEMENTS.INI) where pictures are brought together and the required actions are defined.

7.2.6 Project options

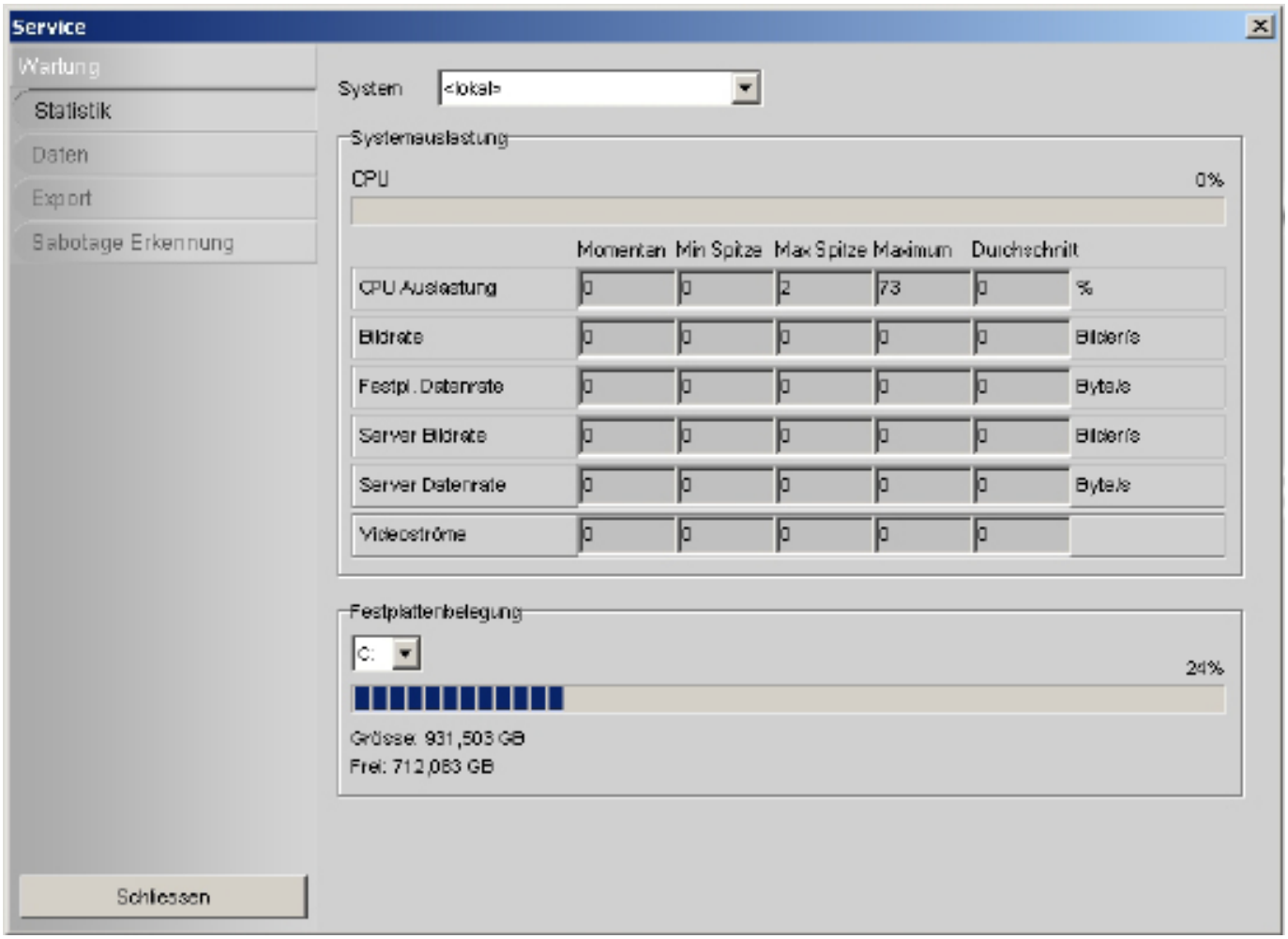
Settings for organising page displays are provided under Project > Options in the menu. This allows you to decide how to split and align your pictures, the positions they occupy and which page should be displayed at Start.



8 Service

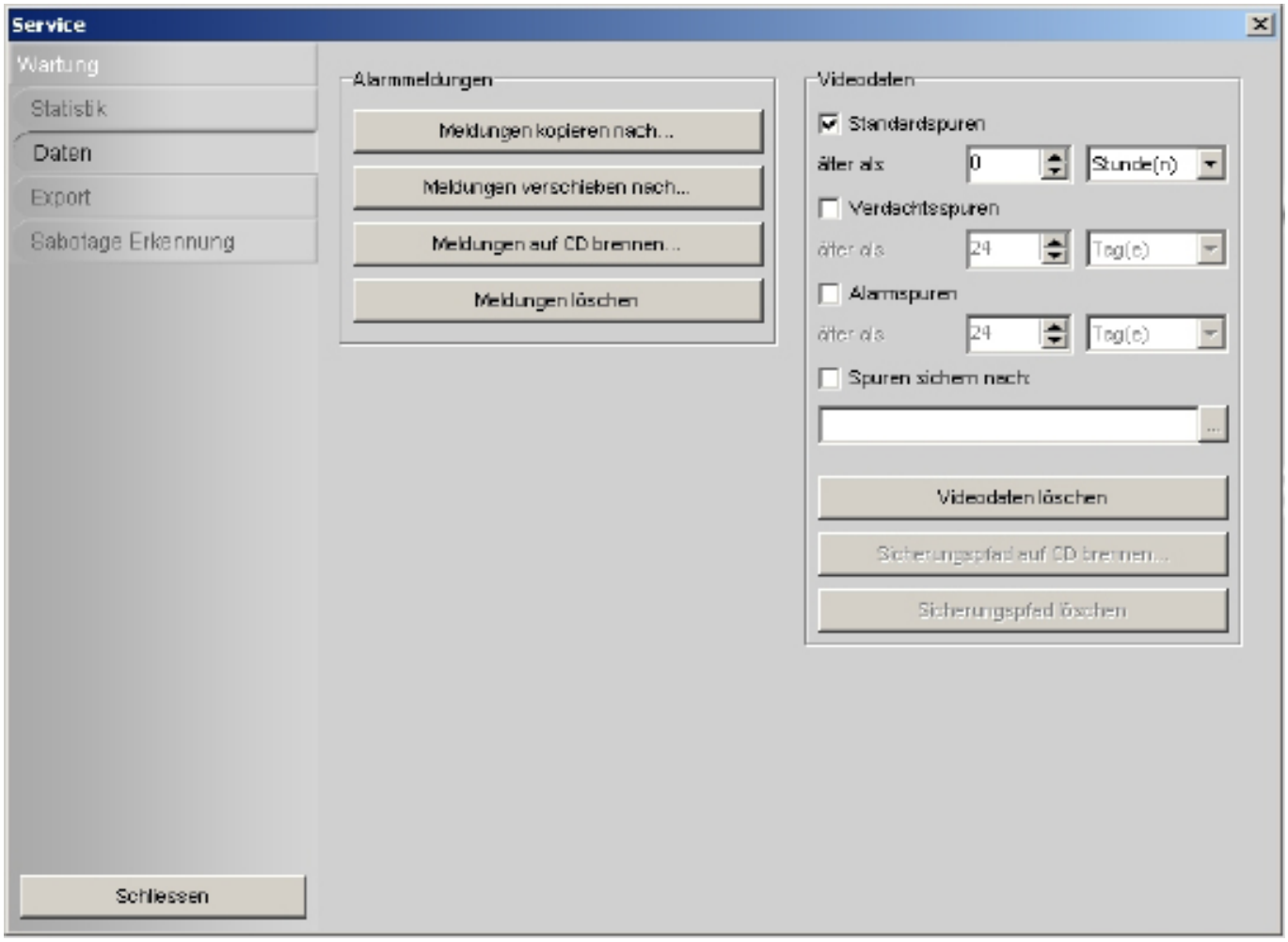
8.1 Statistics

This screen gives a graphic display of the current CPU workload and hard disk space used, together with picture speed and data flow information.



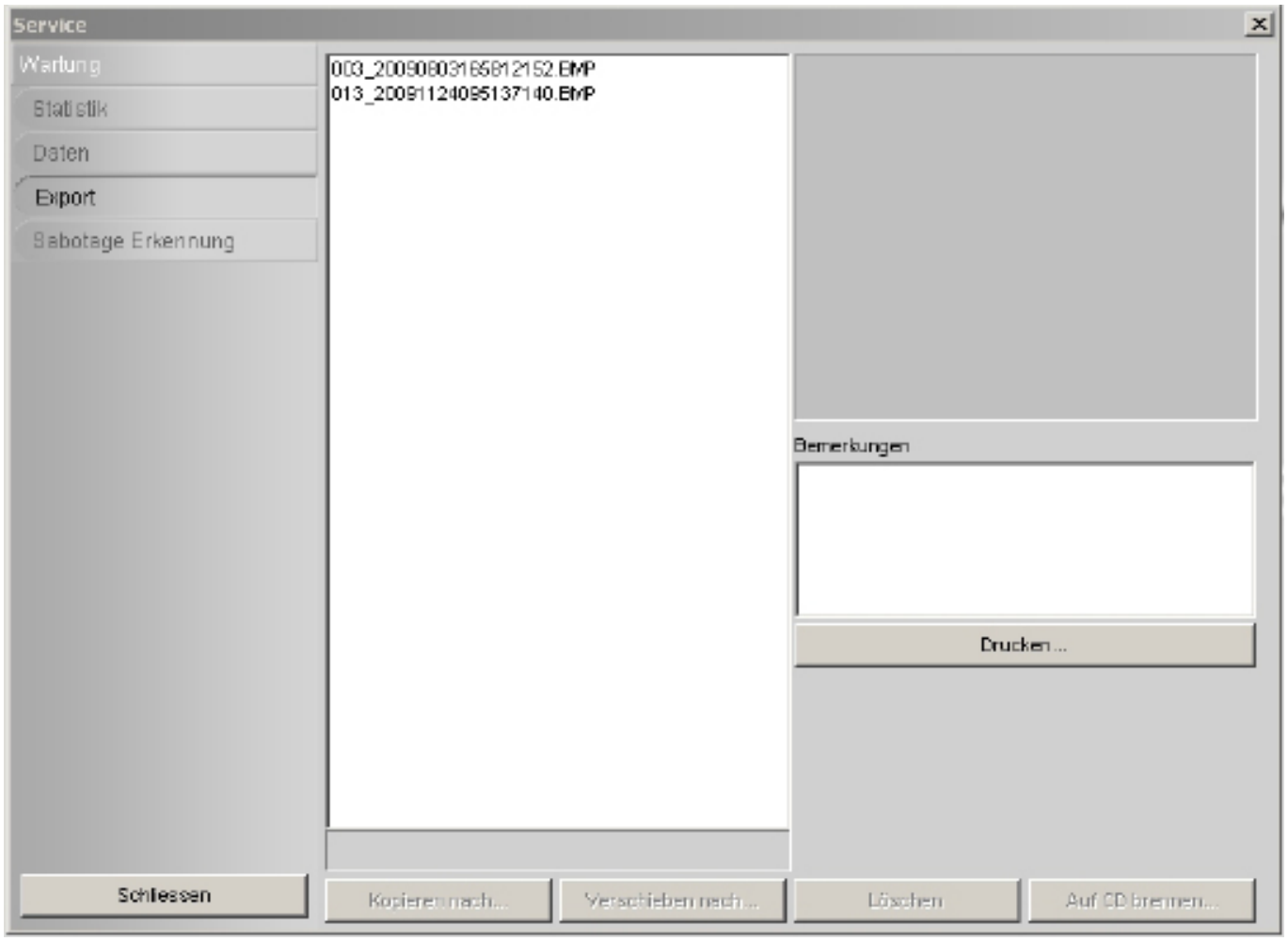
8.1.1 Data

Provides the opportunity to copy, move or delete alarm reports and video data or to burn them directly onto CD (only with Windows XP).



8.1.2 Export

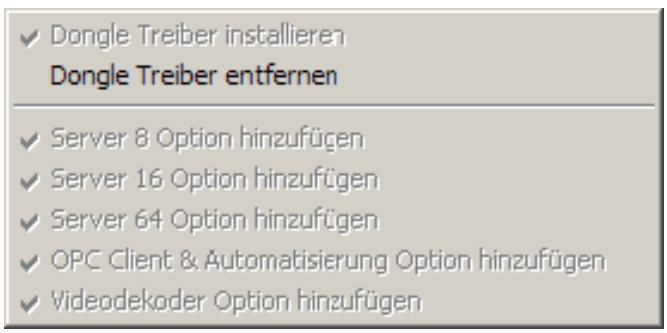
Provides access to snapshots taken, with the opportunity, in addition to showing them, to copy, move or delete them, or to copy them directly to CD (only with Windows XP).



9 Other Program functions

9.1 Licensing

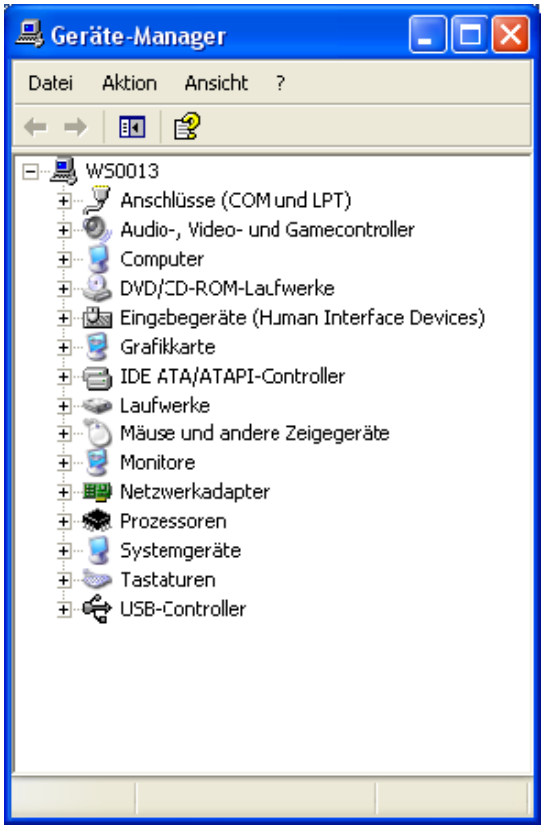
This option is used to add and remove Dongle drivers and licenses.



10 Appendix

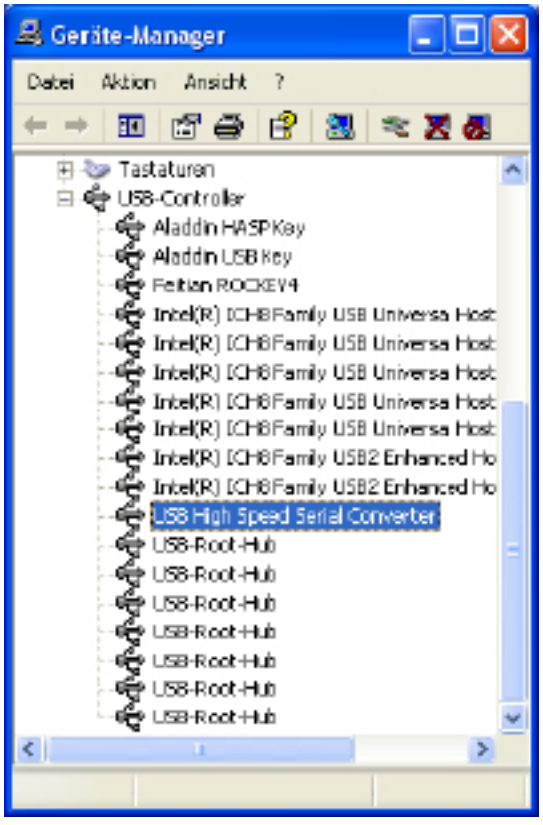
10.1 Installation of a V Module I/O USB

10.1.1 Driver installation



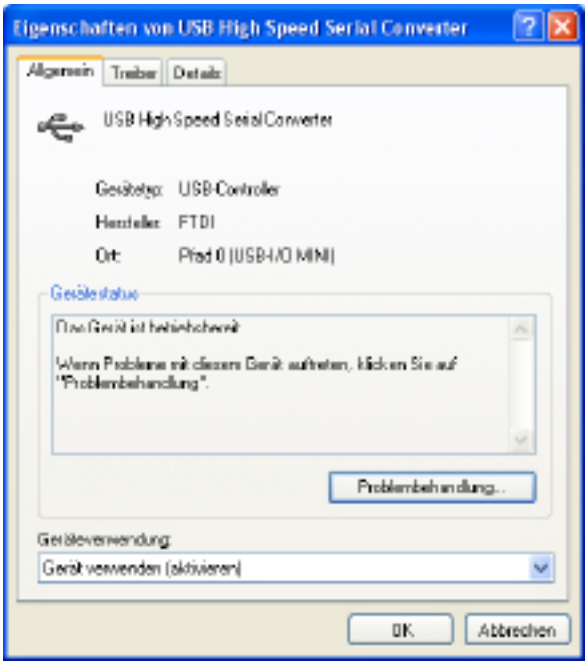
Switch the computer on and start Windows. Now wait until the desktop has finished loading, then connect the VModule with the USB cable to the USB
port on your PC.
When the USB connector has been plugged in, the operating system reports that it has found a USB component and asks for a suitable driver in order to install the unit in Windows. Select manual installation and go to the directory containing the video management software, for example C:\Programme\DiViCro\VModul_IOMini to enable Windows to install the module driver. You will then be able to use Windows System Manager to
control the entries to the USB module.
Start the System Manager by clicking on Start > Settings > System Manager, then double-click on System. Select the System manager Record card, where you will find the USB components first at Computer > Connections and secondly at USB Controller.
The corresponding USB components should be displayed here:

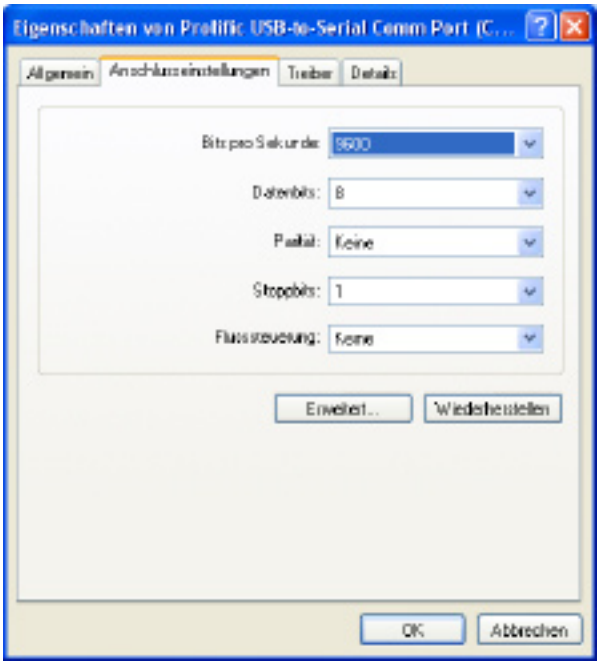
- USB Controller
- USB Serial Converter



10.1.2 Settings in System Manager

Click on USB Serial Port(COM5) to exit and then activate the Properties checkbox. The following entries must be displayed on the relevant General Record card (Fig. 1) and in Port Settings (Fig. 2):





You can now use the Port Settings Record card to change the baud rate or other serial connection parameters to any values you usually obtain from a standard COM interface. Use the Advanced button to set the FIFO buffer memory. You can obtain any other information on serial communication from the Windows operating system Help screen.

10.2 Automation

In the Scriptlanguage is a new instruction implemented for control of Split of the 2nd monitor.

```
$SetMatrix2
```

Analog to the command „$SetMatrix“ for the 1st Monitor, this command applies to the Split of the 2nd Monitor.

Example:

```
$SetMatrix2=4 - applies the  2. Monitor up to a  2x2-Matrix
```

Following new variable has been integrated:

```
$CameraNNNNAlarmeAcknowledged
```

This Variable delivers the value 1, as soon as a message of the affected Videosource has been confirmed over the Alarmlist. The Variable can be interrogate with the command TEST.

Example:

```
test $Camera0001AlarmeAcknowledged=1

    ... [commands]

  end
```

New Commands since the Version 1.7.01 Build 321 Beta

`$CameraNNNNOverExposure-Alarme`	Videosource reports alarm of overexposure
`$CameraNNNNUnderExposure-Alarme`	Videosource reports alarm of underexposure
`$CameraNNNNAnalysisAlarme`	Videosource reports Alarm from analysis
`$CameraNNNNAnalysisValue`	optional value of analysis
`$CameraNNNNError`	failure of the Videosource
`$CameraNNNNSabotageAlarme`	Sabotagealarm has been triggered for the Videosource

$MonitorControl_PTZUp

$MonitorControl_PTZDown

$MonitorControl_PTZLeft

$MonitorControl_PTZRight

$MonitorControl_ZoomNear

$MonitorControl_ZoomFar

$MonitorControl_FocusNear

$MonitorControl_FocusFar

$MonitorControl_IrisClose

$MonitorControl_IrisOpen

$MonitorControl_IrisAuto

$MonitorControl_FocusAuto

Trackcontrol_PlayForward

TrackControl_PlayBackward

TrackControl_PlayFastFor-
ward

TrackControl_PlayFast-
Backward

TrackControl_PlayFast-
Backward

TrackControl_PlayFast-
Backward

TrackControl_TrackStart

TrackControl_TrackEnd

TrackControl_NextImage

TrackControl_PreviousI-
mage

From now on a subprogram will run at the start up and the end of the program in the Automation, if it has been defined.

At the start up of the Program the Call of the Program „Startup“ occurs.

Example:

```
 Program Startup

      $Camera0012PresetPosition=2

   End
```

The videosource 12 will launch the PTZ-Position 2 at the start-up of the program.

The Call „Shutdown“ occurs at the end of the program.

Example:

```
Program Shutdown

      $Camera0012PresetPosition=1

   End
```

The Videosource 12 will launch the PTZ-Position 1 at the start-up of the program.

The execution of the program is limited to 3 seconds.

Since Version 1.5.07 Build 281 two auxiliary variables, which can be read and written as bidirektional strings, with name

```
$CamerannnnAux01
$CamerannnnAux02,
```

has been integrated for each videosource.

Example:

```
test $KeyF1=1

    $Camera0001Aux01=Test

  end
```

```
  test $Camera0001Aux02=1

     $SelectCamera=3

     $ConnectMonitor=1

  end
```

This auxiliary variables are supported by the VM OPC Server since version 1.6.

In Version 1.5.05 Build 274 the Automail has been upgraded by the command to activate a Snapshot.

It is called.

```
$SnapShot=1
```

The filename of the last executed Snapshot can be detected anymore:

```
$LastSnapShotFile
```

Furthermore it is possible to sen e-Mails in the Automation now. The E-Mail notice of the alarms are absobing the account adjustment. From now on the following Variables are available in the automation:

```
$MailTo=[receiver E-Mail accountof the Message]

$MailSubject=[title of the message]

$MailMessage=[Text of the message]

$MailAttachFile=[Path and name  attached file

 $SendMail=1    send the mail
```

Example:

```
test $KeyF1=1

    $MailTo=news@schille.com

    $MailSubject=This is a testmail

    $MailMessage=the quick brown fox jumps over the lazy dog

    $MailAttachFile=$LastSnapShotFile
```

```
    $SendMail=1

  end
```

Concealing the Start-and End dialog

The start-up and the ending dialog cn be conceales for the execute as a service.
The function happens through the following entry:

```
[DESKTOP]

    WaitWindowHide=1
```

If all dialogs are hidden, no monitoring occurs to the ending of the program.

The PTZ-Control of ActiveX Videosources

With the command „TRIGGER“ it is possible to execute commands for a certain time daily.

The command has the following Syntax:

```
TRIGGER [Time]

  ... Commands

  END
```

The time has to be shown in hour:minute, whereas the formatting of the local adjustment has to be observe.

Example:

```
TRIGGER 12:48

     $SelectCamera = 3

     $ConnectMonitor = 1

  END
```

„Videosource 3 is connecting to Monitor 1 at 12:48“

MPEG4 Assignment
The assistance of the MPEG4-Format supports now optional theassignment between Server and Clients. The assignment can be activated by the following entry in the INI-File.

```
[SYSTEM]

CodecSupport=1
```

Version 1.4.22 Build 214

A new command, which enabled thedelay of the next step achievment, has been implemented:

`WAIT [n]` [n] = holding time in seconds

Example:

`WAIT 4` *Wait 4 seconds and then make the next step.*

Version 1.4.20 Build 21

Hard disk monitoring

All messages of the hard disk monitoring can be written in the file ‚HDCONTROL.LOG' through the configuration file:

```
[SYSTEM]

LogHDControlMessages=1
```

Version 1.4.16 Build 204

Videoserver

The self-test of the videoserver can be choose optional now. The clearing results from the following entry:

```
[SYSTEM]

EnableVideoServerCheck=1
```

Videoserver

For the compensation of the demand, the maximum frame rate of the videoserver, dependet on the

number of the client connections, will be reduced.
This Function can be disconnected by the following entry in the .INI file optional:

```
[SYSTEM]

DisableClientStreamingLimit=1
```

The Compensation results from the following parameters:

> 50 Client connections: Imaging cycle limited on 1s

> 40 Client connections: Imaging cycle limited on 800ms

> 30 Client connections: Imaging cycle limited on 600ms

> 20 Client connections: Imaging cycle limited on 400ms

> 10 Client connections: Imaging cycle limited on200ms

beneath this barrier: Imaging cycle on image source with up to 40ms

PTZ-Control

The display of the CGI-Camera command can be controlled now, for the PTZ-Controll via an extern control panel.
The previous buffering can be deactivated by the entry

```
[IOCONTROL]

LockMultipleCGICommands=1
```

and the command can be forwarded to the Videosource directly. The entry of 0 activates the buffering.

Performance-Monitor

For testing purposes within the logfile.display you can display an overview of all important processs with the associated terms now, by the entry

```
[DESKTOP]

   PerformanceMonitor=1
```

in the .INI-File.

Backup of Videotracks
A parallel backup of Videotracks from all Videosources on an extarnal directory can be made by a seperate entry in the .INI-file.
That occurs by the following entry:

```
[BACKUP]

 BackupStandardTracks=     1 = Backup Standar Tracks

 BackupSuspicionTracks=    1 = Backup Suspicion Track

 BackupAlarmeTracks=       1 = Backup Alarme Tracks

 BackupPath=              Target path for backup
```

128 entries will be secured in a Ringmemory during an unsuccesful backup. This setting takes place for all Videosources simultancously.

Starter program RESTART.EXE

The starter-program has been extended by a dely in the program execution. This allowed a delayed start of the Videomanagement, particulary the execution of the Windows-Autostart.
To this you have to create a Batch-File, which has to be add in the Autostart instead of the Video-management. The following has to be entered in the Batch-File:

```
RESTART Programname [Delay in seconds]
```

for example

```
RESTART DIVICRO.EXE 30

 RESTART SINVR.EXE 30

 RESTART ZELARIS_IP.EXE 30
```

for a Delayed Start of 30 Seconds.

Remote Setting from variables in the Automation

Now it is possible to set variables in the automation, which are lying on a videoserver. The Targetserver is defined by an attached @ (at) on the variable name.
The variables only let describe, but not to read. The server has to be defined in the Videoserver configuration and the controlserver has to be registered for this.

Example:

```
Test $KeyF1 = 1

     $SetMatrix@LOCALHOST=1

     [Audio Volume control Volume control Mute]@LOCALHOST=1

  End



  Test $KeyF2 = 1

     $SetMatrix@LOCALHOST=2

     [Audio.Volume control Volume control Mute]@LOCALHOST=0

  End
```

When pressing the F1 key on the Client, the Matrix 1 will be set on the Server „LOCALHOST“ and the defined OPC-Datapoint will be labelled with the value 1.

When pressing the F2 key on the Client, the Matrix 2 will be set on the Server „LOCALHOST“ and the defined OPC-Datapoint will be labelled with the value 0.

New Systemvariables at the Automation

Function keys:

`$KeyF1`	call of the Function key F1
`$KeyF2`	call of the Function key F2
`$KeyF3`	call of the Function key F3

`$KeyF4`	call of the Function key F4
`$KeyF5`	call of the Function key F5
`$KeyF6`	call of the Function key F6
`$KeyF7`	call of the Function key F7
`$KeyF8`	call of the Function key F8
`$KeyF9`	call of the Function key F9
`$KeyF11`	call of the Function key F11
`$KeyF12`	call of the Function keyF12

Example (When pressing the function key F1 to F4, then selection of a Preset:

```
Test $KeyF1 = 1
    $Preset = 0
 End
 Test $KeyF2 = 1
    $Preset = 1
 End
 Test $KeyF3 = 1
    $Preset = 2
 End
 Test $KeyF4 = 1
    $Preset = 3
 End
```

Controlcomannds:

`$SelectCamera`	Select Videosource
`$SelectMonitor`	Select Display
`$ConnectMonitor`	Connection of Monitor and selcted Camera
`$LiveMode`	Calling Live Display
`$PlayMode`	Calling play Display
`$SetMatrix`	Calling Split

Example (When pressing the function key F5 to F12, then controlcommands:

```
Test $KeyF5 = 1
    $SelectCamera=1
  End
  Test $KeyF6 = 1
    $SelectCamera=2
  End
  Test $KeyF7 = 1
    $SelectCamera=3
  End
  Test $KeyF8 = 1
    $SelectCamera=4
  End
  Test $KeyF9 = 1
    $ConnectMonitor=1
```

```
End

Test $KeyF11 = 1

   $LiveMode=1

End

Test $KeyF12 = 1

   $PlayMode=1

End
```

The command „TEST“ has been extended by a query of an indefinitely change of an OPC-Item.

the Syntax is called:

```
TEST variable <>

   instruction

END
```

The instruction will be executed at all changes of the OPC-Item here.

The list of the OPC-Items will not be updated by closing the Configuration dialog, but directly on the Call of the Automation-tab.

The easy Scriptlanguage allows you to monitor the OPC-files and the the internal variables, also it is allowed to set any values.
The following commands will be available:

```
Command  TEST
```

The command TEST initialized the value, followed from the applications and finished with the command END.

Syntax:

```
TEST variable=value

   instructions

END
```

Command PROGRAM

The Command PROGRAM initialized the definition of a sub-program, followed by theinstruction and the finishing command END

Syntax:

```
PROGRAM programname

    instructions

 END
```

Command CALL

call in a sub-program. The program has to be defined in front of the called line.

Syntax:

```
  CALL programname
```

OPC-Data points will be characterized with closed square brackets

(Example: `[System.IOControl.In01]`), Systemvariables by a prefixed dollarsign (`$name`).

The OPC-Data points will be predefined by the OPC-Client, the Systemvariables are given internal.

The Following are given at the time:

$Preset current memory	Value 0..79, Read and Write
$Sequence current tour	Value 0..8, Read and Write
$CameraNNNNPresetPosition PTZ-Control of the camera NNNN, 0001 bis 0064	Value 1..32, only write

`$CameraNNNNUserEvent` Value 0 oder 1, read and write
user event of the camera NNNN, 0001 bis 0064

`$CameraNNNNInput01` Value 0 oder 1, only read
input channel 01 of the camera NNNN, 0001 bis 0064

`$CameraNNNNInput02` Value 0 oder 1, only read
input channel 02 of the camera NNNN, 0001 bis 0064

`$CameraNNNNInput03` Value 0 oder 1, only read

input channel 03 der Kamera NNNN, 0001 bis 0064

`$CameraNNNNInput04` Value 0 oder 1, only read

input channel 04 of the camera NNNN, 0001 bis 0064

`$CameraNNNNInput05` Value 0 oder 1, only read

input channel 05 of the cameraNNNN, 0001 bis 0064

`$CameraNNNNInput06` Value 0 oder 1, only read
input channel 06 of the camera NNNN, 0001 bis 0064

`$CameraNNNNOutput01` Value 0 oder 1, read and write

output channel 01 of the cameraNNNN, 0001 bis 0064

`$CameraNNNNOutput02` Value 0 oder 1, read and write

output channel 02 of the camera NNNN, 0001 bis 0064

`$CameraNNNNOutput03` Value 0 oder 1, read and write
output channel 03 of the camera NNNN, 0001 bis 0064

`$CameraNNNNOutput04` Value 0 oder 1, read and write
output channel 04 of the camera NNNN, 0001 bis 0064

`$CameraNNNNOutput05` Value 0 oder 1, read and write
output channel 05 of the camera NNNN, 0001 bis 0064

`$CameraNNNNOutput06` Value 0 oder 1, read and write
output channel 06 of the camera NNNN, 0001 bis 0064

Exampleprogram: (The program select the Preset 1, as soon as at the OPC-Item occurs the value.)

```
Program Intrusion

   $Preset=1

End


Test [Audio.Volume control Volume control Mute] = True

   Call Intrusion

End
```

List of all commands

`$CameraNNNNOverExposure-Alarme`	Videosource reports alarm of overexposure
`$CameraNNNNUnderExposure-Alarme`	Videosource reports alarm of underexposure
`$CameraNNNNAnalysisAlarme`	Videosource reports Alarm from analysis
`$CameraNNNNAnalysisValue`	optional value of analysis
`$CameraNNNNError`	failure of the Videosource
`$CameraNNNNSabotageAlarme`	Sabotagealarm has been triggered for the Videosource
`$MonitorControl_PTZUp`	
`$MonitorControl_PTZDown`	
`$MonitorControl_PTZLeft`	
`$MonitorControl_PTZRight`	
`$MonitorControl_ZoomNear`	
`$MonitorControl_ZoomFar`	
`$MonitorControl_FocusNear`	
`$MonitorControl_FocusFar`	
`$MonitorControl_IrisClose`	
`$MonitorControl_IrisOpen`	
`$MonitorControl_IrisAuto`	
`$MonitorControl_FocusAuto`	
`Trackcontrol_PlayForward`	

TrackControl_PlayBackward	
TrackControl_PlayFastFor-ward	
TrackControl_PlayFast-Backward	
TrackControl_PlayFast-Backward	
TrackControl_PlayFast-Backward	
TrackControl_TrackStart	
TrackControl_TrackEnd	
TrackControl_NextImage	
TrackControl_PreviousI-mage	
$SelectCamera	Select Videosource
$SelectMonitor	Select Display
$ConnectMonitor	Connection of Monitor and selcted Camera
$LiveMode	Calling Live Display
$PlayMode	Calling play Display
$SetMatrix	Calling Split

10.3 Hotkeys

As at Version 1.3.12
Build 134

Hotkeys in the Automation:

Since the Update to Version 1.3.11 Build 133 a new command in the automation enabled the Use of Hotkeys.
The definition results of the command „HOTKEY“ followed by indicating the allocating keyboard-code:

```
HOTKEY=<button definition>

     Command

End
```

The button definition consistsof any combination of the buttons

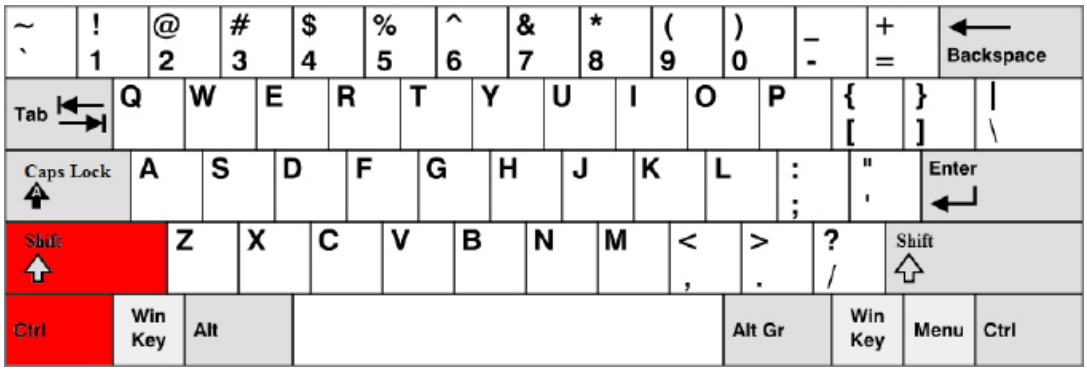
- CTRL
- ALT
- SHIFT

and a letter-, funtion- or number button. Each of theam has to be combined by a plus sign.
If the relevant Hotkey is already in use, it cannot be allocated another time.

Example:

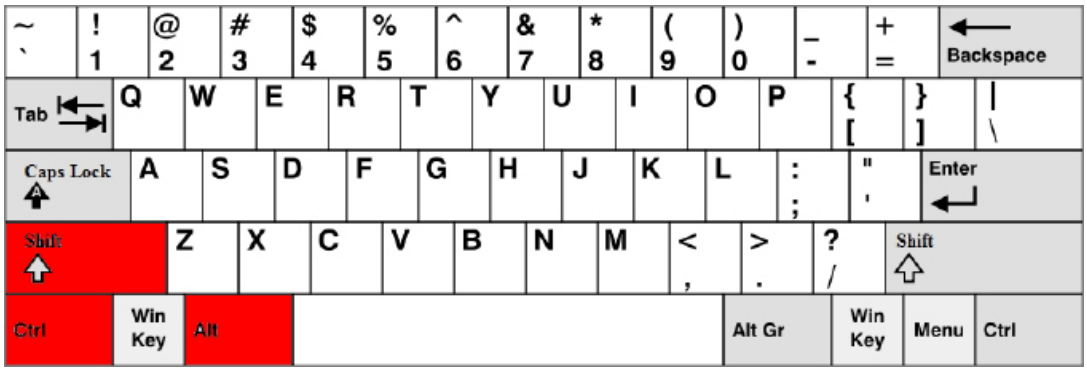
```
HOTKEY=CTRL+ALT+SHIFT+A

     $MonitorControl_PTZRight = 10

  END



  HOTKEY=CTRL+ALT+SHIFT+Z

     $MonitorControl_PTZRight = 0

  END
```

Overview of all Hotkeys



CTRL+SHIFT+A	Toggle Alarmlist
CTRL+SHIFT+B	Pause
CTRL+SHIFT+C	First Video Window
CTRL+SHIFT+D	Previous Video Window
CTRL+SHIFT+E	Next Video Window
CTRL+SHIFT+F	Last Video Window
CTRL+SHIFT+G	Pause
CTRL+SHIFT+H	Playmode
CTRL+SHIFT+I	Live
CTRL+SHIFT+J	Snapshot
CTRL+SHIFT+K	Logoff
CTRL+SHIFT+M	Starting time for export
CTRL+SHIFT+N	Ending time for export
CTRL+SHIFT+O	Calling and hiding of the export-area

CTRL+SHIFT+P	Image Backwards
CTRL+SHIFT+Q	Image Forwards
CTRL+SHIFT+R	Navigation to beginning of the recording
CTRL+SHIFT+S	Navigation to the end of the recording

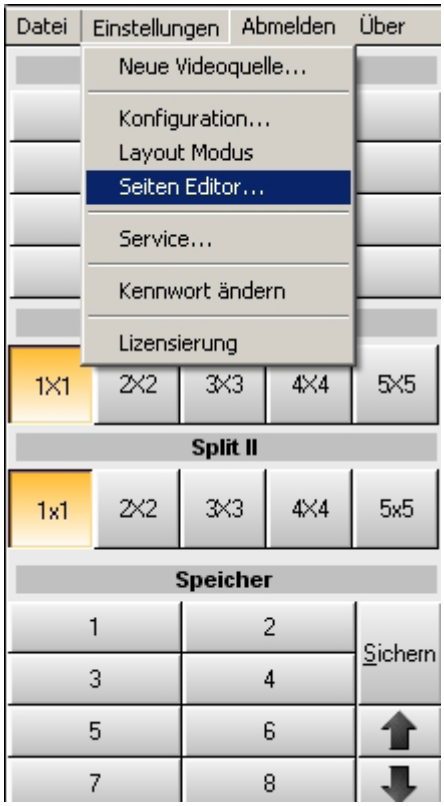


CTRL+SHIFT+ALT+A	Play Fast Backwards
CTRL+SHIFT+ALT+B	Play Fast Backwards
CTRL+SHIFT+ALT+C	Play Fast Backwards
CTRL+SHIFT+ALT+D	Play Backwards
CTRL+SHIFT+ALT+E	Play Backwards
CTRL+SHIFT+ALT+F	Play Backwards
CTRL+SHIFT+ALT+G	Play Backwards
CTRL+SHIFT+ALT+J	Play Forwards
CTRL+SHIFT+ALT+K	Play Forwards
CTRL+SHIFT+ALT+L	Play Forwards
CTRL+SHIFT+ALT+M	Play Forwards
CTRL+SHIFT+ALT+N	Play Fast Forwards
CTRL+SHIFT+ALT+O	Play Fast Forwards
CTRL+SHIFT+ALT+P	Play Fast Forwards
CTRL+SHIFT+ALT+Q	Move the Zoom to the left
CTRL+SHIFT+ALT+R	Move the Zoom to the right

10.4 The Page Editor

Starting the Editor

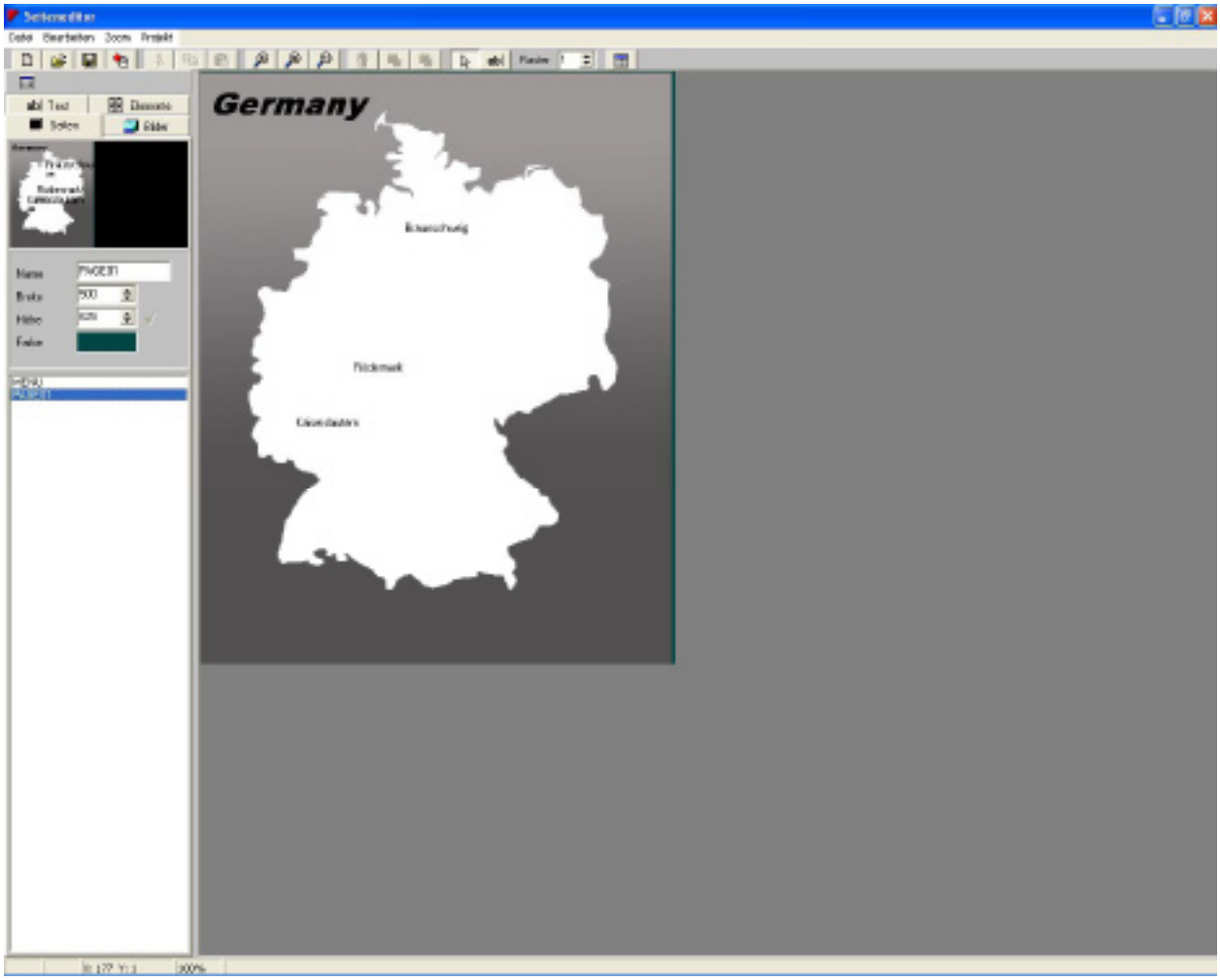
You get to the Editor by opening the main menu. There you have to open the tab „Settings“ an then to click on „Page Editor“.



Now you´re in the Page Editor.

The Pages tab

The first item of the Page Editor Start screen is the Pages tab. You can use this screen to manage pages you have created, create new pages, change page height and width and to name pages you want to save.
Always make sure that you make changes with the red bracket.
A reduced whole page preview in BMP format is always displayed at the top left of the screen.
The page you have created and the preview can be found in the “\DiViCro\PAGES” directory.

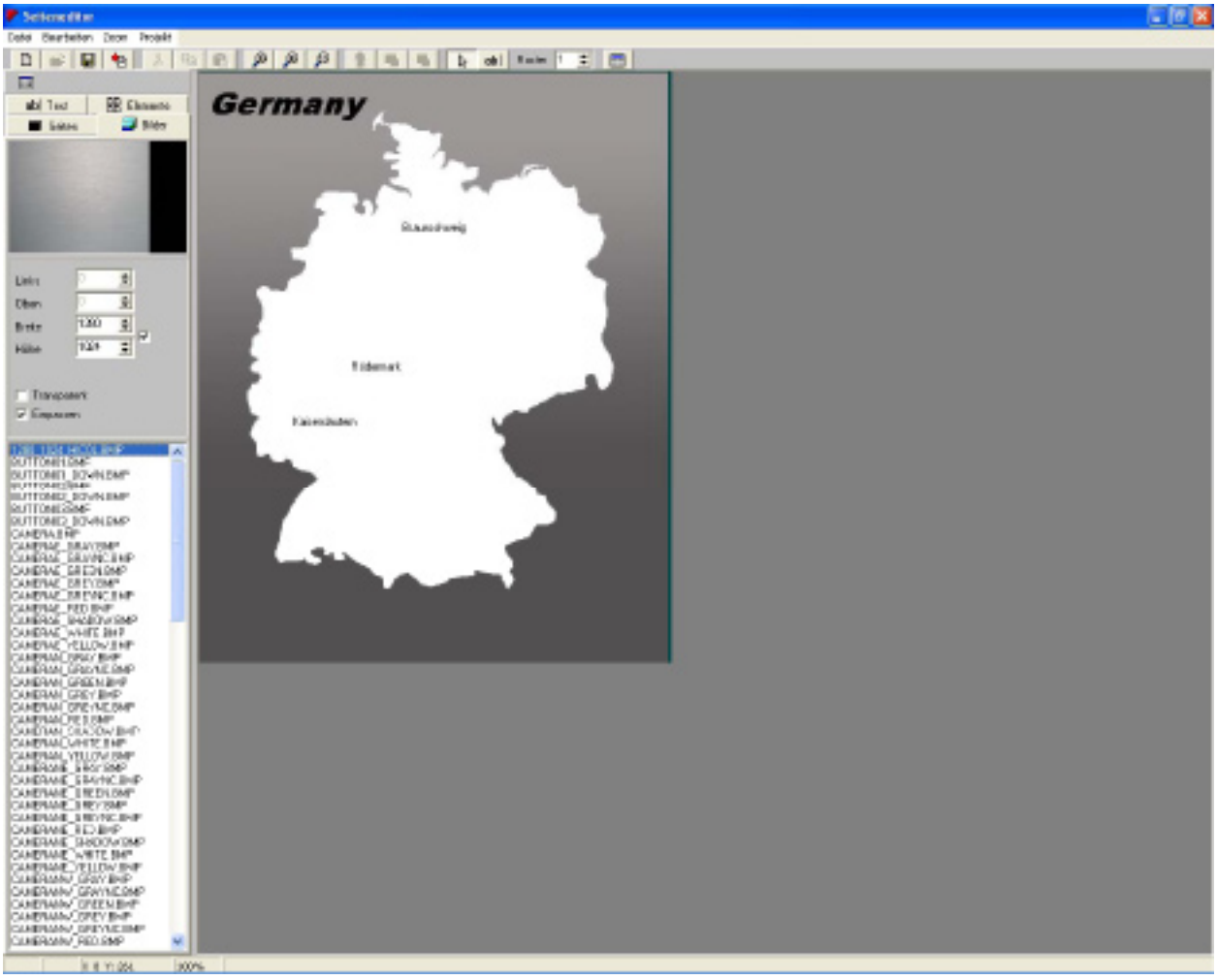


First you have to create pictures for your page. When this is done save the pictures in the Folder „C:\DiViCro\PICTURES“.

Remember: Save Pictures as .BMP-File.

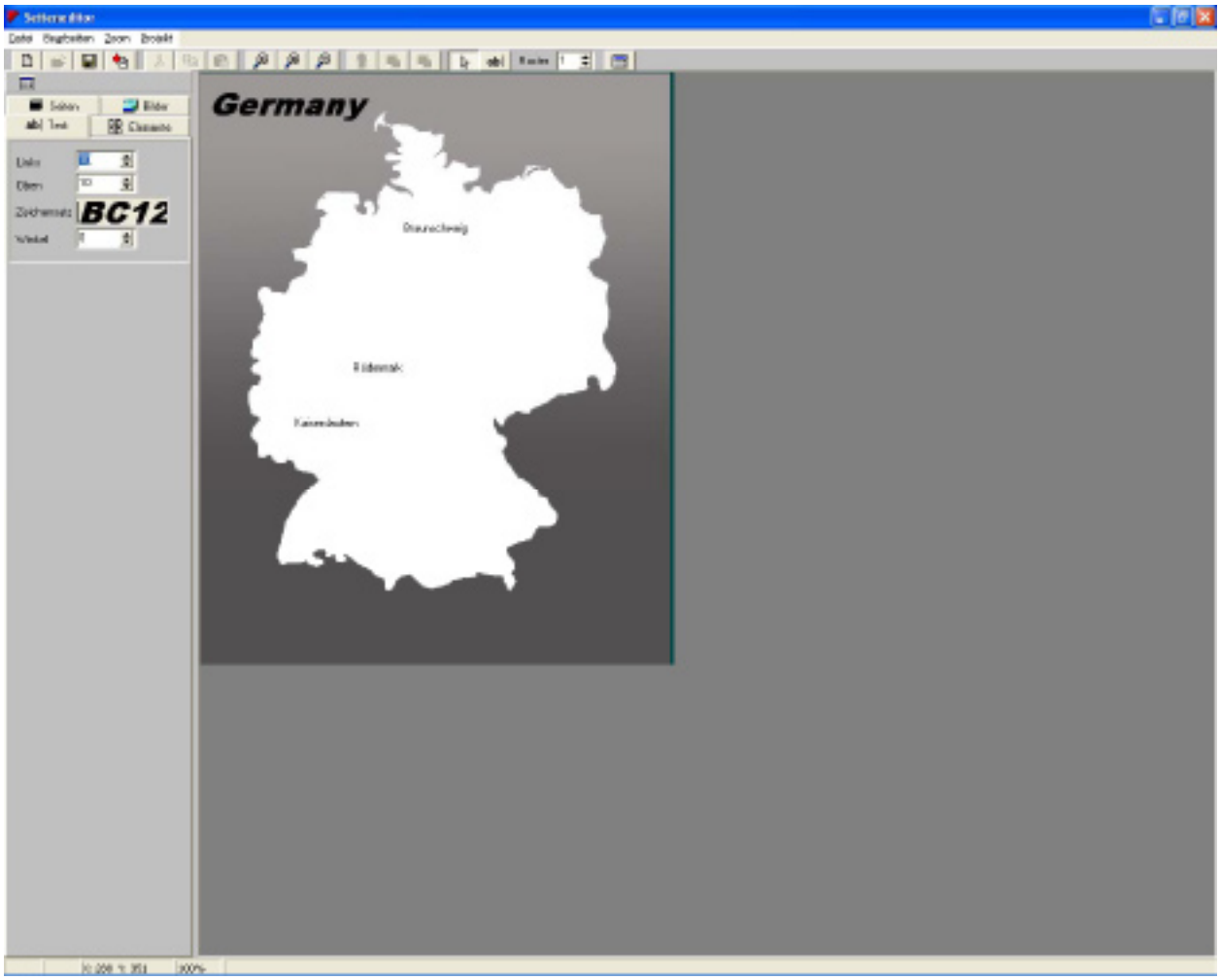
The Pictures tab

You can use this screen to select pictures from the checkbox at the bottom and use drag&drop to move them in any format to the page you have created.
Use Left and Top to set the position of the picture, unless it has already been moved manually to the required position. The Height and Width of the picture can be adjusted in the checkboxes below, or manually, directly on the picture. The ratio remains proportional only as long as the relevant checkbox is activated.
Picture transparency is also adjusted in the checkbox.
The Fit function ensures that the picture graphic fits the picture in the event of size changes.
All pictures are kept in BMP format in the “\DiViCro\PICTURES” directory.



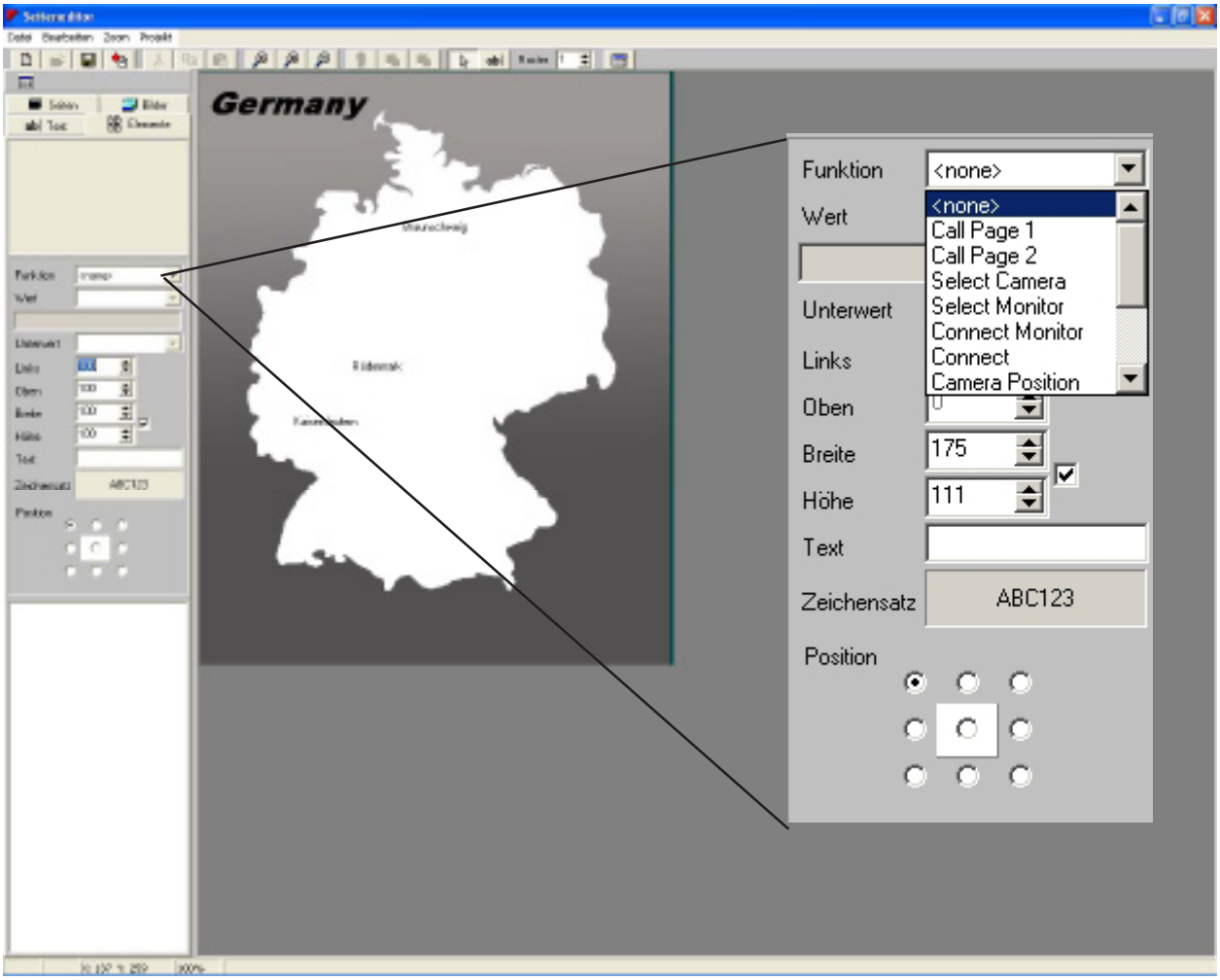
The Text tab

This tab enables you to create any number of text boxes and position them on the page. To do this, click on the “Open text box” symbol on the toolbar and then on the position on the page where you want to place your text passage. Now, you can write your text. To change or edit text, click on the relevant text object and then on the “Open text box” symbol on the toolbar. To change the symbol set, click in the “Symbol set” box.



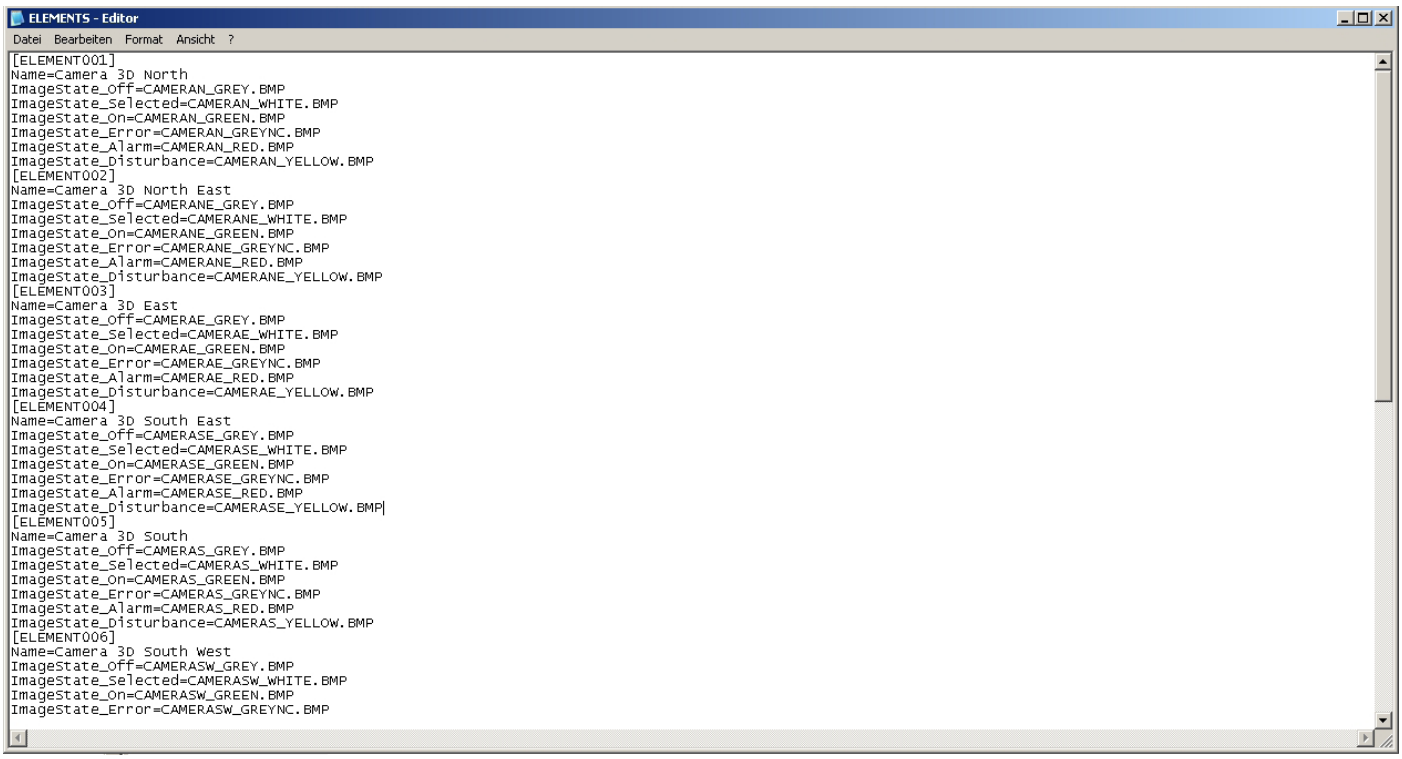
The Elements tab

Elements are the “control units” of the desktop you have created. They are used to produce and control graphics with functions.
The elements are moved using drag&drop from the list or preview picture to the required position on the page. The position, width and height of selected objects can then be changed at the “handle” points or using the checkboxes.



The function gives the object’s application type. Value and Subvalue are then used to assign objects for connection or for use.
Text shows the object label. The label can be changed by clicking on Symbol set and aligned by checking the Radio button.
The actual elements are defined in a file (\DiViCro\ELEMENTS.INI) where pictures are brought together and the required actions are defined.

Note: If you change the elements in this File, you have to restart DiViCro.


ELEMENTS - Editor
Datei Bearbeiten Format Ansicht ?
[ELEMENT001]
Name=Camera 3D North
ImageState_Off=CAMERAN_GREY.BMP
ImageState_Selected=CAMERAN_WHITE.BMP
ImageState_On=CAMERAN_GREEN.BMP
ImageState_Error=CAMERAN_GREYNC.BMP
ImageState_Alarm=CAMERAN_RED.BMP
ImageState_Disturbance=CAMERAN_YELLOW.BMP
[ELEMENT002]
Name=Camera 3D North East
ImageState_Off=CAMERANE_GREY.BMP
ImageState_Selected=CAMERANE_WHITE.BMP
ImageState_On=CAMERANE_GREEN.BMP
ImageState_Error=CAMERANE_GREYNC.BMP
ImageState_Alarm=CAMERANE_RED.BMP
ImageState_Disturbance=CAMERANE_YELLOW.BMP
[ELEMENT003]
Name=Camera 3D East
ImageState_Off=CAMERAE_GREY.BMP
ImageState_Selected=CAMERAE_WHITE.BMP
ImageState_On=CAMERAE_GREEN.BMP
ImageState_Error=CAMERAE_GREYNC.BMP
ImageState_Alarm=CAMERAE_RED.BMP
ImageState_Disturbance=CAMERAE_YELLOW.BMP
[ELEMENT004]
Name=Camera 3D South East
ImageState_Off=CAMERASE_GREY.BMP
ImageState_Selected=CAMERASE_WHITE.BMP
ImageState_On=CAMERASE_GREEN.BMP
ImageState_Error=CAMERASE_GREYNC.BMP
ImageState_Alarm=CAMERASE_RED.BMP
ImageState_Disturbance=CAMERASE_YELLOW.BMP
[ELEMENT005]
Name=Camera 3D South
ImageState_Off=CAMERAS_GREY.BMP
ImageState_Selected=CAMERAS_WHITE.BMP
ImageState_On=CAMERAS_GREEN.BMP
ImageState_Error=CAMERAS_GREYNC.BMP
ImageState_Alarm=CAMERAS_RED.BMP
ImageState_Disturbance=CAMERAS_YELLOW.BMP
[ELEMENT006]
Name=Camera 3D South West
ImageState_Off=CAMERASW_GREY.BMP
ImageState_Selected=CAMERASW_WHITE.BMP
ImageState_On=CAMERASW_GREEN.BMP
ImageState_Error=CAMERASW_GREYNC.BMP

10.5 Videosources

Name	Format
ACTI ACM-4200	MPEG4
ACTI CAM-6510P	MPEG4
ACTI CAM-7322P	MPEG4
ACTI MPEG4	UNICAST
ACTI SED-2120 ENCODER	MPEG4
Arecont Vision AV13xx H.264	Unicast
Arecont Vision AV21xx H.264	Unicast
Arecont Vision AV31xx H.264	Unicast
AV 1xxx Series	JPEG (Arecont)
AV 1xxx Series	MJPEG (Arecont)
AV 2xxx Series	JPEG (Arecont)
AV 2xxx Series	MJPEG (Arecont)
AV 3xxx Series	JPEG (Arecont)
AV 3xxx Series	MJPEG (Arecont)
AV 5xxx Series	JPEG (Arecont)
AV 5xxx Series	MJPEG (Arecont)
AV 8xxx Series	JPEG (Arecont)
AV 8xxx Series	MJPEG (Arecont)
AVerMedia NC100	
AVerMedia NC100	JPEG
Aviosys IP Camera	
Aviosys IP Camera	JPEG
AXIS 206M	JPEG
AXIS 206M	MJPEG
AXIS 207	JPEG
AXIS 207	MJPEG
AXIS 209FD	JPEG
AXIS 209FD	MJPEG
AXIS 210	JPEG
AXIS 210	MJPEG
AXIS 211	JPEG
AXIS 211	MJPEG
AXIS 211M	JPEG
AXIS 211M	MJPEG
AXIS 212 PTZ	JPEG
AXIS 212 PTZ	MJPEG
AXIS 214 PTZ	JPEG
AXIS 214 PTZ	MJPEG
AXIS 215 PTZ	JPEG
AXIS 215 PTZ	MJPEG
AXIS 216FD	JPEG

AXIS 216FD	MJPEG
AXIS 221	JPEG
AXIS 221	MJPEG
AXIS 223M	JPEG
AXIS 223M	MJPEG
AXIS 225FD	JPEG
AXIS 225FD	MJPEG
AXIS 231/232 PTZ	JPEG
AXIS 231/232 PTZ	MJPEG
AXIS 241Q	JPEG
AXIS 241Q	JPEG (241S etc.)
AXIS 241Q	MJPEG
AXIS 241Q	MJPEG (241S etc.)
AXIS 241Q	MJPEG QUAD
AXIS 241Q	MJPEG Quadimage
AXIS 243Q	JPEG
AXIS 243Q	MJPEG
Axis 292	
AXIS 2100	JPEG
AXIS 2100	MJPEG
AXIS 2120	JPEG
AXIS 2120	MJPEG
AXIS 2130 PTZ	JPEG
AXIS 2130 PTZ	MJPEG
AXIS 2400	JPEG
AXIS 2400	MJPEG
AXIS 231232PTZ	JPEG
AXIS 231232PTZ	MJPEG
AXIS ACTIVEX	MJPEG MPEG2 MPEG4
AXIS H264	UNICAST (all H.264 Sources)
AXIS MPEG4	UNICAST (all MPEG-4 Sources)
AXIS MPEG	ActiveX (incl. Audio)
AXIS P3301	MJPEG
AXIS Q1755	MJPEG
AXIS Q7401	JPEG
AXIS Q7401	MJPEG
BASLER H.264	UNICAST
BASLER MPEG-4	UNICAST
BIP1000c	MJPEG
BIP1000c	MJPEG EZOOM
BIP1300c	MJPEG
BIP1300c	MJPEG EZOOM
BIP1600c	MJPEG

BIP1600c	MJPEG EZOOM
Bosch AutoDome	
BOSCH DiBos 7	JPEG
Bosch DiBos 8	ActiveX
BOSCH DiBos 8	JPEG Imageserver
BOSCH DIVAR	ActiveX
C-50E	MJPEG
Camera Video Server Interface to Professional SLR Cameras	
Canon Network Camera	
Canon Network Camera	JPEG
CAPTUREDEVICE01	MJPEG/WDM-Video
CAPTUREDEVICE02	MJPEG/WDM-Video
CAPTUREDEVICE03	MJPEG/WDM-Video
CAPTUREDEVICE04	MJPEG/WDM-Video
CBC MP Series	JPEG
CBC MP Series	MJPEG
CONVISION VServer	JPEG
CONVISION VXXX Server	JPEG
DALLMEIER ACTIVEX (Leonardo etc.) inkl. PTZ	
DALLMEIER CAM_INNET	MJPEG
DALLMEIER CAM_INNET	MPEG4 (Camera, Encoder, DIS-Recorder)
DEDICATED MICROS DVR	
D Link DCS 2000	JPEG
D Link DCS 2100	JPEG
D Link DCS 5300	JPEG
D Link Internet Camera	JPEG
Eltis ET 1001	JPEG
EMITALL Privacy One	
ENEO DLR	ActiveX
ENEODLR ACTIVEX	MJPEG
Eneo ECS01	ActiveX
ENEO EDC1001	JPEG
ENEO EDC1001	MJPEG
Eneo EKR 328	
Eneo EKR 328A	
ENEO ENC 501	JPEG
ENEO ENC 501	MJPEG
ENEO ENC 1001	JPEG
ENEO ENC 1001	MJPEG
ENEO ENC 1002	JPEG
ENEO ENC 1002	MJPEG
ENEO ENC 1003	JPEG

ENEO ENC 1003	MJPEG
ENEO ENC 1004	JPEG
ENEO ENC 1004	MJPEG
Eneo Fast Trax	
Eneo Fast Trax Extended	
ENEO GLC-0501 / 1401	JPEG
ENEO GLC-0501 / 1401	MJPEG
ENEO GLC 501	JPEG
ENEO GLC 501	MJPEG
ENEO GLC 1401	JPEG
ENEO GLC 1401	MJPEG
ENEO GLC 1601	JPEG
ENEO GLC-1601	MJPEG
ENEO GLD 1401	JPEG
ENEO GLD-1401	MJPEG
ENEO GLS 2101	JPEG
ENEO GLS-2101	JPEG
ENEO NT	MPEG4 Encoder
Eneo VKC 1416	
Eneo VPT 42	
FCS 1010	JPEG
Flexwatch Network Camera	JPEG
Generic	JPEG
Generic	MJPEG
Generic MJPEG Netscape(c) compatible	
Generic RTP Multicast	MPEG4
Generic RTP Unicast	MPEG4
GeViScope	
Grandtec IP Camera	JPEG
Hawking NC200 NC220W	JPEG
Hunt LAN Camera	JPEG
IDS Falcon	
Inform InfoControl	JPEG
Intellinet 550710	JPEG
IQEYE 511	
IQEYE 752	
IQEYE 753	
JVC VN-C3WU	MJPEG
JVC VN-C10	MJPEG
JVC VN-C20	JPEG
JVC VN-C20	MJPEG
JVC VN-C30	MJPEG
JVC VN-C30U	MJPEG

JVC VN-C205	MJPEG
JVC VN-C215	JPEG
JVC VN-C215	MJPEG
JVC VN-C625U	MJPEG
JVC VN-C655U	MJPEG
JVC VNC	MJPEG
JVC VN-V25	JPEG
JVC VN-V25	MJPEG
JVC VN-V26	JPEG
JVC VN-V26	MJPEG
JVC VN-V225U	JPEG
JVC VN-V225U	MJPEG
JVC VN-V225VPU	JPEG
JVC VN-V225VPU	MJPEG
JVC VN-V685	JPEG
JVC VN-V685	MJPEG
JVC VN-V685U	JPEG
JVC VN-V685U	MJPEG
JVC VN-V686BU	JPEG
JVC VN-V686BU	MJPEG
JVC VN-V686	JPEG
JVC VN-V686	MJPEG
JVC VN-V686U	JPEG
JVC VN-V686U	MJPEG
JVC VN-V686WPC	JPEG
JVC VN-V686WPC	MJPEG
JVC VN-V686WPU	JPEG
JVC VN-V686WPU	MJPEG
JVC VN-X35	MJPEG
JVC VN-X235U	MJPEG
Kingwave KW3701	JPEG
Kingwave KW3702	JPEG
Kingwave KW3715	JPEG
Kingwave KW3716	JPEG
Kingwave KW3720	JPEG
Kingwave KW3730	JPEG
Lenovo 1001	JPEG
Levelone FCS-1010	
Levo ET 1001	JPEG
Lindy IP NetCam	
Lindy IP NetCa	MJPEG
Lumenera LE175C	JPEG
Lumenera LE175C	MJPEG

Lumenera LE275C	JPEG
Lumenera LE275C	MJPEG
Lumenera LE375C	JPEG
Lumenera LE375C	MJPEG
Medina	
Mobi Internet Camera	JPEG
MOBOTIX	ActiveX
MOBOTIX D10	JPEG
MOBOTIX D10	MJPEG
MOBOTIX D12	JPEG
MOBOTIX D12	MJPEG
MOBOTIX	JPEG
MOBOTIX	JPEG
MOBOTIX M1	MJPEG
MOBOTIX M10	JPEG
MOBOTIX M10	MJPEG
MOBOTIX M22	JPEG
MOBOTIX M22	MJPEG
MOBOTIX	MJPEG
MOBOTIX Q22	MJPEG
Mobotix Q24	JPEG
Mobotix Q24	MJPEG
NKF Optelecom SIQURA C-54 E	MJPEG
NKF Optelecom SIQURA S-50 E	MJPEG
NKF Optelecom SIQURA S-60 E	MJPEG
NKF Optelecom SIQURA V-30 E	MJPEG
ORITE IP Cam	
ORITE IP Ca	MJPEG
Panasonic Conventional Protocol	
PANASONIC KX/BL/BB Series	JPEG
PANASONIC KX/BL/BB Series	MJPEG
PANASONIC KXSERIES	JPEG
PANASONIC KXSERIES	MJPEG
PANASONIC	MPEG4
PANASONICWJNT104	MJPEG
PANASONIC WV-NT340	MJPEG
PANASONIC WV Series II	MJPEG
PANASONIC WV Series	JPEG
PANASONIC WV SERIES	JPEG
PANASONIC WV Series	MJPEG
Pelco D	
Pelco P	
Pixford VideoServer	JPEG

S-50E	MJPEG
SAMSUNG SNC B2315	JPEG
SAMSUNG SNC B2315	MJPEG
SAMSUNG SNC B5395	JPEG
SAMSUNG SNC B5395	MJPEG
SAMSUNG SNC M300	JPEG
SAMSUNG SNC M300	MJPEG
Security Center TV7203	JPEG
Security Center TV7214	JPEG
Security Center TV7216	JPEG
Security Center TV7219	JPEG
Security Center TV7240	JPEG
Sensormatic AD168	
Sensormatic AD Dome	
SIEMENS CCIC13nn	MPEG4
Siemens CCIC1345-LP	JPEG
Siemens CCIC1345-LP	MJPEG
Siemens CCIC 1410	MJPEG
Siemens CCID1410 ST	MJPEG
Siemens CCIS1345-LP	JPEG
Siemens CCIS1345-LP	MJPEG
Siemens CCIW1345-LP	JPEG
Siemens CCIW1345-LP	MJPEG
Siemens CFMC1315	JPEG
Siemens CFMC1315	MJPEG
SIEMENS CX1	MPEG 4
SIEMENS CX4	MPEG 4
SIEMENS CX8	MPEG 4
Siemens IP-Module	JPEG
Siemens IP-Module	MJPEG
Siemens TELSCAN	JPEG
Siemens TELSCAN	MJPEG
SIQURA C-50E	MPEG4
SIQURA CAMERA	MPEG4
SIQURA ENCODER	MPEG4
SIQURA FD22	MPEG4
SIQURA S-50E	MPEG4
SIQURA V-30E	MPEG4
SONY SNC INV	JPEG
SONY SNC INV	MJPEG
SONY SNC	JPEG
SONY SNC	MJPEG
Stardor Netca	MJPEG

Sweex IP Network Camera	JPEG
Toshiba IK WB02A	JPEG
Toshiba IK WB11A WB01A	JPEG
Toshiba IK WR01A	JPEG
TRENDnet TV IP100 100W	JPEG
TRENDnet TV IP200 200W	JPEG
Trust Surveillance Camera	JPEG
V-30E	MJPEG
VCenter NC1000	JPEG
VCenter NC1000 L10 W10	JPEG
VC IP Camera	MJPEG
VCS ACTIVEX	MPEG2 MPEG4
VCS	JPEG
VCS MPEG	ActiveX
VCS VIDEOJET 8008	ActiveX
VCS VideoJet 8008	JPEG
VCS VIDEOJET	ActiveX
VCS Videoserver	JPEG
VideoLAN Client	ActiveX
Video Server Interface to Geutebrück Multiscope, Geviscope	
Videoserver (SiVM)	
Videoserver (SiVMS)	
Vidisys Cobra	ActiveX
Vivotek 3000	JPEG
Vivotek Video Server	JPEG
WDM Devices	
Xannet XIPCAM 1001	JPEG
Y-CAM	JPEG
Y-CAM	MJPEG
Y-CAM MPEG4	UNICAST

Deutsche Gesetzliche Unfallversicherung
Fachausschuss Verwaltung
Prüf- und Zertifizierungsstelle im BG-PRÜFZERT

Bescheinigung
Nr. **VW 083519**
vom 28.07.2008

BG-Prüfbescheinigung

Name und Anschrift des Bescheinigungsinhabers: (Auftraggeber)	Schille Informationssysteme GmbH Goseriede 4 30159 Hannover
Name und Anschrift des Herstellers:	Siehe Auftraggeber
Produktbezeichnung:	Videoüberwachungs-Software
Typ:	DiViCro in Verbindung mit I/O-Modul
Bestimmungsgemäße Verwendung:	Optische Raumüberwachung in Kredit- und Geldwechselinstituten
Prüfgrundlage:	Anforderungen an CCD-Kameras und digitale Aufzeichnungsgeräte von optischen Raumüberwachungsanlagen für das BG-PRÜFZERT-Zeichen "BGV Kassen", Ausgabe 04.99
Zugehöriger Prüfvermerk:	V 083023 vom 24.07.2008
Bemerkungen:	---

Das geprüfte Baumuster entspricht der oben angegebenen Prüfgrundlage.
Der Bescheinigungsinhaber ist berechtigt, das umseitig abgebildete BG-Zeichen an den mit dem geprüften Baumuster übereinstimmenden Produkten anzubringen.

Diese Bescheinigung wird spätestens ungültig am: 31.07.2011

Weiteres über die Gültigkeit, eine Gültigkeitsverlängerung und andere Bedingungen regelt die Prüf- und Zertifizierungsordnung vom April 2004.

Leiter des Zertifizierungsgebietes

Prüf- und Zertifizierungsstelle · DGUV · Fachausschuss Verwaltung

Fachzertifizierer

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